



**MACRONIX
INTERNATIONAL Co., LTD.**

2020 Corporate Social Responsibility Report



June 2021

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1. Messages from the Macronix Executives

1.1 Message from the Chairman and CEO

Macronix International Co., Ltd. (“Macronix”) was founded in Taiwan's Hsinchu Science Park in 1989. Macronix continuously strives for the innovation and development of Non-Volatile Memory (NVM) technologies, and provides a full range of NOR Flash, NAND Flash, and ROM solutions. By adhering to the business philosophy of Honesty, Macronix not only improves its ability to manufacture high-quality products, but also continues to pay attention to the sustainable development of the environment and its corporate social responsibility. The year 2020 brought along many challenges—not only the impact of COVID-19, but also exchange rate fluctuations, the ongoing US-China trade war, and broken supply chains. The pandemic changed the way we work and our lifestyle. However, not everything was negative: working from home is becoming the new normal; in addition, the stay-at-home economy created more opportunities in the memory market. Macronix's high-quality products and services continued to earn the trust of customers. Sectors in the high-end application market—such as the 5G, automotive, industrial, medical, and aerospace industries—maintained growth momentum and, we delivered splendid results. The above bears witness to Macronix's excellent process technologies, R&D capabilities, and strict quality requirements, enabling us to gain the greatest competitive edge when faced with various challenges and opportunities.

In 2020, Macronix's consolidated net revenue for the year was NT\$39.801 billion and annual consolidated gross profit was NT\$13.409 billion, while annual gross profit margin was 33.7%, net profit after tax was NT\$5.326 billion, and earnings per share were NT\$2.9. Cash generated from operating activities was NT\$9.855 billion and cash expenditure for investment activities was NT\$6.043 billion, with NT\$11.879 billion in cash equivalents at the end of the period. The debt ratio was 45.1% and price-to-book ratio (P/B ratio) rose to NT\$19.52. All of these figures indicate that Macronix has a sound financial position.

Innovative R&D is the foundation of Macronix's sustainable development. Macronix has focused on the research of cutting-edge memory technologies and product development since it was established. Its R&D expenditure accounted for 10% of revenue in 2020. Furthermore, Macronix also engages in long-term strategic cooperation with major technology companies worldwide, jointly developing advanced memory technologies to strengthen our technological capabilities. As of the end of 2020, Macronix accumulated 8,320 patents worldwide. It also has incorporated many foundational patents and key 3D

technologies. Macronix not only holds a high quantity of patents, but also high-quality patents, which further strengthens the Company's leading position in the international non-volatile memory market and facilitates its long-term development.

As for corporate governance, ethical corporate management stands as the cornerstone of our corporate culture. Macronix strictly complies with laws and regulations, as well as implements risk management with regard to trade secrets and information security, in order to create a sustainable business environment. As for corporate social responsibility, to promote organizational management and fulfill the responsibility as a global citizen Macronix has introduced various international management standards in relation to the Environment, Social, and Governance (ESG) aspects for many years. With regard to corporate social responsibility, as the world gradually shifted its attention to the United Nations Sustainable Development Goals (SDGs) in the implementation of Corporate Social Responsibility (CSR), we have focused our attention to water resources, climate change, and biodiversity management as environmental SDGs. We are actively implementing energy conservation, water conservation, and carbon reduction measures through the establishment of various management systems. We tackle the problem at its source to ensure compliance with international standards and customer requirements, such as the EU's Restriction of Hazardous Substances (RoHS) Directive and Substances of Very High Concern (SVHC) requirements, as well as the End-of-life Vehicles (ELV) Directive, which has received the attention of the automotive industry.

Moreover, as the pandemic kept spreading, Macronix paid closer attention to employees' mental and physical health. In addition to implementing various anti-epidemic measures protecting employees from COVID-19, we continued to offer CT lung screenings, abdominal ultrasounds, and coronary artery calcium (CAC) scoring in 2020, working together with hospitals to properly care for the health of our employees.

We believe that talent cultivation is the foundation for strengthening the nation's technological capabilities; therefore, we have spared no effort in the promotion of science education. The Macronix Education Foundation was founded in 2001 with an initial donation from the Company, and it has held the Macronix Golden Silicon Awards and Macronix Science Awards for 20 consecutive years. More than 30,000 teachers and students have participated in these awards, showing their extensive influence. Macronix also gives back to the community through concrete actions: it continuously cultivates outstanding talent to drive innovation forward. Furthermore, it donated funds to National Cheng Kung

University to found the School of Computing in 2020, spearheading the domestic development of interdisciplinary integration and computing, as well as the innovative talent cultivation project.

In the future, our management team will continue to leverage its forward-looking perspective and stable strategy to respond to new competition and challenges. We will continue to enhance our technical capabilities and cost advantages, create Memory-Centric Solutions for computer architecture, and develop next-generation technologies for the memory industry, with the aim of jointly creating a mutually beneficial situation for employees, shareholders, customers, and suppliers.

Chairman and CEO Miin Wu

Miin Wu



1.2 Message from the President

COVID-19 caused a tremendous impact on the global economy, but Macronix has tirelessly continued to develop new technologies and products. Thanks to the concerted efforts from all employees, we created better business results during the pandemic. In terms of ROM, products with capacity over 64Gb accounted for 58% of ROM revenues in the fourth quarter of last year (2020), and ROM products accounted for approximately 40% of overall revenue. With regard to NOR Flash, 55 nm advanced products accounted for 23% of NOR Flash revenue in the fourth quarter of last year (2020), and we continue to move towards a 45 nm manufacturing process. On the other hand, high-density products above 256Mb have been growing in popularity every year, and made up to 36% of NOR Flash revenue last year (2020). High-end applications in the automobile, industrial, medical, and aerospace sectors accounted for 27% of NOR Flash revenue. These also can be expected to become the main sources of revenue growth for NOR Flash products. With regard to NAND Flash products, 19 nm SLC NAND Flash products have excellent yields; new products and applications are now entering the verification phase with high customer expectations. As for 3D NAND, we have completed the development of 48-layer products in phase one. The products will gradually contribute to revenue after mass production begins, and we will continue to sprint towards our 192-layer stacking technology goal to develop next-generation memory products. In addition, Macronix provides low power consumption, high-speed IO, and high-capacity memory solutions to adapt to the coming 5G era. These solutions have fulfilled client expectations for the stability and durability of memory products, and have been widely adopted by manufacturers of 5G base stations. These examples provide ample evidence that Macronix possesses first class product designs and manufacturing technologies. It is precisely these qualities and the Company's competitive edge that have distinguished Macronix in the memory market. At the same time, Macronix has incorporated big data and AI analysis into its production process to increase product yield, providing the Company a leading position in terms of features and advantages.

Macronix attaches great importance to safety, environmental protection, and labor rights. Besides tackling the problems at their source, we have incorporated the concept of CSR into our product design. All of the chemicals and metals used on our products comply with the EU's RoHS Directive and the Regulation for Registration, Evaluation,

Authorization and Restriction of Chemicals (REACH), and do not include conflict minerals. Since we began implementing the IECQ QC080000 (Hazardous Substance Process Management System) in 2007, we have passed third-party certification and gained recognition from our customers each year. Furthermore, we have also promoted the abovementioned requirements within our supply chain. Macronix adopted preemptive measures for the severe threat of COVID-19 in 2020. For example, we perform risk assessment of suppliers (RAS) on an annual basis to ensure that the supply of upstream and downstream companies remains uninterrupted, and that suppliers can fulfill their corporate social responsibilities. This shows our persistence and determination to deliver better products that comply with safety, environmental protection, and quality requirements. In 2020, once again, we passed the Validated Assessment Program (VAP) audit of the Responsible Business Alliance (RBA) with the highest score possible, displaying our commitment to sustainable development.

As the leading manufacturer of Non-Volatile Memory (NVM) integrated devices, Macronix continues to enhance and develop new products. In addition, we are devoted to the care of our employees, the cultivation of professional talent, and the fulfillment of social responsibility. In 2020, Macronix won the Annual Sustainable Elite award again at the second SGS CSR Awards. Additionally, Macronix cooperates with governmental agencies to fulfill its CSR, sharing achievements and efforts made in circular economy with other companies at the annual meeting of the SEMI.

CSR has become a crucial topic in sustainable development. The Macronix CSR Report for 2020 faithfully discloses our persistence and determination to achieve sustainable development based on the GRI Standards published by the Global Reporting Initiative (GRI). The report connects our business philosophy of Honesty with the UN SDGs, which have guided the establishment of an excellent governance system that will ensure that our Company stably grows within Earth's capacity as we strive towards sustainable development.

President Chih-Yuan Lu



2. Macronix

Macronix's Mission Statement

Be it today or in the future, Macronix strives to become a leading supplier in the semiconductor industry. The Company provides innovative customer/application-oriented solutions and NVM products thanks to its outstanding advanced technologies and reliable services.

Macronix, a leading integrated device manufacturer in the global Non-Volatile Memory (NVM) market, provides a full range of ROM, NOR flash, NAND flash, and e.MMC solutions. With its world-class R&D and manufacturing capabilities, Macronix continues to deliver high-quality, innovative, and performance-driven products to its customers in the consumer, communication, computing, automotive electronics, and industrial markets, among others.

Macronix was founded in Taiwan's Hsinchu Science Park in 1989. Since its inception, the Company has continuously leveraged the competitive advantages of its products and constantly strived to enhance its production and manufacturing capabilities in order to deliver high-quality products and services. As a result, we have successfully established long-term, mutually beneficial strategic partnerships with large, world-class manufacturers. Macronix has adhered to high corporate governance standards, while actively maintaining investor relations and advocating CSR. Macronix was the first semiconductor company in the Hsinchu Science Park to receive the SA8000 Corporate Responsibility Management Systems certificate. The Company was also awarded the Corporate Governance Certification for publicly traded and over-the-counter companies. In 2020, Macronix passed the RBA VAP with excellent results, showing that we take CSR seriously and are committed to achieving sustainable development.

Each year, Macronix allocates 10% or above of its revenue for R&D. The results of its R&D have been published over the years in technical journals, and presented in multiple international academic conferences, such as the IEDM and the ISSCC. Macronix currently holds the intellectual property rights for over 8,000 key international technologies and patents. We have formed alliances with leading high-tech firms across the world to collectively conduct research, with the purpose of co-developing technologies for Phase Change memories. Macronix has also announced the world's first flash

prospective technology — BE-SONOS™. All of these developments aim to provide solutions for the next generation of non-volatile memories.

Macronix currently owns one 12-inch wafer fab (Fab 5), one 8-inch wafer fab (Fab 2), and one 6-inch wafer fab (Fab 1). Macronix designs and fabricates its non-volatile memory products in Fab 5 and Fab 2. Fab 1 focuses on strategic foundry businesses for niche analog and logic products.

Macronix spun off its logic products unit to establish subsidiaries so that the Company's operations could better focus on delivering optimized performance. Since then, the subsidiaries and Macronix have cooperated in the R&D of mobile platform solutions; expanding the Group's overall integration capabilities.

Looking ahead, Macronix will continue to research and develop new technologies to stay ahead of the competition, while simultaneously pursuing new product development and enhancing its technologies, quality, and services in order to increase its competitiveness and profitability. We will do our utmost to deliver sustainable growth for Macronix while also enhancing Taiwan's competitiveness worldwide.



2.1 Products and Services



As an integrated device manufacturer in the Non-Volatile Memory (NVM) market, Macronix provides a full range of NOR Flash, NAND Flash, and e.MMC™ solutions.

Thanks to its R&D and manufacturing capabilities, Macronix continues to deliver high-quality, innovative, and performance-driven products to its customers in various fields, such as the consumer, communication, computing, automotive electronics, industrial, and smart healthcare sectors. In 2020, Macronix owned three wafer fabs: 6-inch wafer fab producing approximately 260,000 wafers, 8-inch wafer fab producing approximately 480,000 wafers, and 12-inch wafer fab producing approximately 220,000 wafers.

Macronix is capable of providing a comprehensive lineup of densities for serial NOR flash products, from 512 Kbit to 2 Gbit. We also provide miniature NOR flash products that can adequately fulfill the demands for lightweight and miniature portable electronic products. Moreover, our self-developed Single-Level Cell (SLC) NAND flash products provide superior quality and reliable applications that meet the needs of a high level, embedded market. Furthermore we introduced the 19 nm SLC and Multi-Level Cell (MLC) NAND in 2018. We also provide KGD (Known Good Die) products to meet the needs of (System in Package) solutions. In our ROM business, 32 nm XtraROM® has entered mass production.

Macronix has a wide variety of solutions that can help customers design the best products for different applications. In terms of IoT and other low power applications, Macronix launched the Ultra Low Power Flash to gain a foothold in the wearable smart device market. It features low power consumption—60% less than conventional products—and wide range VCC. We further launched the Ultra Low VCC Flash (1.14V-1.3V) in 2017, in response to the trend for lower core voltage of logic ICs, as well as to support more

efficiently IoT, Bluetooth, and health monitoring products that require low power consumption. As for the automotive market, Macronix provides octaflash, ArmorFlash, and LybraFlash—launched in 2020—to meet various clients' needs. octaflash is the industry's fastest SPI NOR with a new-generation, low-pin count, high-performance OctaBus interface—and Read-While-Write (RWW) functions, keeping with the requirements of in-vehicle infotainment, data communication, digital cameras, and IoT for a high-capacity, fast-transmission, and highly-reliable flash memory. As for the ArmorFlash solution, crucial security components have been incorporated into memory chips to satisfy the pressing needs for information security in memory applications, as required by automotive electronics, IoT, and industrial control applications. ArmorFlash has been adopted in the autonomous driving platforms of international manufacturers. LybraFlash provides a high-quality, high-capacity flash memory solution for clients. LybraFlash smartly balances all the possible clients' needs , including: cost effectiveness, high reliability, user friendliness, fast read and fast updates. Nowadays, samples of LybraFlash have been already delivered for design-in validation.

Macronix Products and Applications

Product Type	Key Products	Applications and Functions
Non-Volatile Memory IC	Read-only Memory (Mask ROM/XtraROM®)	Video game cartridges, electronic dictionaries, printers, personal entertainment devices, electronic toys, etc.
	NOR Flash Memory	Mobile phones, set-top boxes, personal computers, digital cameras, MP3 players, CD-ROM drives, printers, hard drives, network devices, tablet PCs, wireless communication devices (Bluetooth, WLAN), arcade games.
	NAND Flash Memory	Mobile phones, set-top boxes, TVs, digital cameras, MP3 players, printers, hard drives, network devices, tablet PCs, wireless communication devices (Bluetooth, WLAN), arcade games.
	e.MMC™	Mainly applied in industrial and network products.
Wafer Foundry Service	Sub-micron Logic Process/Pressurized CMOS and BCD Process	Pressurized CMOS manufacturing power management and LED / LCD driver IC services.
	Embedded ROM/Flash/MTP/OTP Process	Provide integrated embedded ROM/Flash/MTP/OTP to strategic clients.

Scope of Application

Computer 	Personal computers, notebooks, tablets, computer peripherals/accessories, and printers
Consumer 	TV/MOD, wearable devices, drones, sports cameras, digital cameras, smart home appliances, video game systems, Pachinko, toys, audiovisual tools
Communication 	Mobile networks, home networks, enterprise networks, telecommunication networks
Automotive Electronics 	Advanced driving assistance systems, infotainment entertainment systems, information communication systems, dashboards
Industrial 	Automation system for plants, smart building, smart grid, smart medical application, transportation tool, POS device, M2M

Key Markets

Macronix is an export-oriented company, with Japan as our largest market. A prolific manufacturer of gaming systems and consumer electronics worldwide, Japan has a strong and consistent demand for high-quality IC components. Other export destinations are based on the branch offices of Macronix in China, Europe, U.S., Korea, and Singapore. Macronix collaborates with international agents to provide our products to customers from all over the world.

Product Sales and Market Share

Product	2020 (consolidated)	
	Sales Turnover (Thousand NTD)	Sales Ratio (%)
Flash Memory	20,953,865	52.65
Read-only Memory (ROM)	16,022,159	40.26
Wafer Foundry Services (FBG)	2,794,731	7.02
Others	30,192	0.07
Total	39,800,947	100

Macronix has long held the leading position in the global NOR Flash and MaskROM/XtraROM® markets. Based on analysis of our Marketing Division, we ranked number one in the global ROM market in 2020, with a market share of over 50%. NOR Flash accounts for around 24% of the global market share.

2.2 Business Locations Worldwide



2.3 Macronix CSR Milestones

Time	Major Achievements
2000	·Held the first Macronix Golden Silicon Awards - Semiconductor Design and Application Competition
2001	·Established the Macronix Education Foundation
2002	·The Macronix Education Foundation held the first Macronix Science Awards.
2004	·Recognized as an Outstanding Enterprise by the Energy Saving Awards from the Bureau of Energy, Ministry of Economic Affairs ·First firm in the Hsinchu Science Park to complete the comprehensive inventory and verification on greenhouse gases ·Established the Macronix Science Awards Association
2005	·Received the ISO 14001:2004 Environmental Management System Certification from the British Standards Institute ·Macronix's Fab 2 won the 14th ROC Enterprise Environmental Protection Award for four consecutive years
2006	·Received a green product certification from international brands including SONY, CANON, and LG for compliance with RoHS Directive requirements
2007	·Received the IECQ QC080000 Hazardous Substance Process Management System Certification ·Recognized as an Outstanding Manufacturer for Voluntary Greenhouse Gases Emissions Reduction by the Bureau of Industrial Development, Ministry of Economic Affairs ·Received the ISO 14064-1 International Standard for GHG Emission Verification Certification from the British Standards Institute ·Credited with the CG6002 Corporate Governance Certification by the Taiwan Corporate Governance Association

Year	Major Achievements
2008	· Became the first semiconductor manufacturer to receive the SA8000 Corporate Responsibility Management Systems Certification · Donated NT\$300 million to National Tsing Hua University to build the Macronix Building (Learning Resource Center) · Donated CNY 5 million to help victims of the Sichuan earthquake · Helped push upstream and downstream supply chain partners to implement the Electronic Industry Citizenship Coalition Code of Conduct (EICC) · Granted the new OHSAS 18001: 2007 certification from SGS · Granted the Taiwan Occupational Safety and Health Management System (TOSHMS) Certification · Recognized as an Outstanding Enterprise in the Green Procurement Award from the Environmental Protection Administration
2009	· Awarded with the 3rd National Occupational Safety and Health Award · Became the first semiconductor manufacturer to be recognized as an outstanding enterprise and to receive a safety certification · Donated NT\$100 million to aid the victims of Typhoon Morakot in Taiwan · Received the 5th annual Global Views Monthly Magazine CSR Award for its outstanding performance in Corporate Social Responsibility
2010	· Received the 6th annual Global Views Monthly Magazine CSR Award top honor (Five-star rating) · Received the 2010 <i>CommonWealth Magazine</i> Excellence in Corporate Social Responsibility Award · Donated an additional NT\$100 million for the Macronix Building at National Tsing Hua University · Received the Employment Creation Contribution Award from the Executive Yuan
2011	· Donated NT\$30 million to the Japan Earthquake Relief Efforts · Received the Employment Creation Contribution Award from the Executive Yuan · Honored as one of the Top 100 Taiwan Brands by the Ministry of Economic Affairs · Once again received the <i>CommonWealth Magazine</i> Excellence in Corporate Social Responsibility Award · Honored with Contribution Award at the 2011 National Invention and Creation Award · Received the CG6006 Corporate Governance Evaluation Certification · Received the Employee Assistance Program Outstanding Business Award from the Council of Labor Affairs, Executive Yuan

Year	Major Achievements
2012	- Received the 8th annual Global Views Monthly Magazine CSR Award - Once again received the <i>CommonWealth Magazine</i> Excellence in Corporate Social Responsibility Citizenship Award
2013	- Official opening of the new Learning Resource Center at National Tsing Hua University — the Macronix Building - The Macronix Education Foundation was awarded by the Ministry of Education as an Outstanding Educational Foundation
2014	- Deputy Director Wang, Hung-Chih was named an Outstanding Internal Auditor by the Institute of Internal Auditors-Chinese Taiwan - Received the first "Work-Life Balance Award" presented by the Ministry of Labor in recognition of the Company's performance in care and support for employee families and the health and safety of its employees
2015	- Recognized as an Excellent Healthy Workplace by the Health Promotion Administration, Ministry of Health and Welfare - The Taiwan Stock Exchange listed Macronix as one of the companies in the top 5% with outstanding performance in the first corporate governance evaluation.
2016	- Recognized as an Outstanding Water-saving Manufacturer by the Water Resources Agency, Ministry of Economic Affairs - Recognized as an Outstanding Energy-saving Manufacturer by the Ministry of economic Affairs - Recognized as an Outstanding Energy-saving Manufacturer by the Hsinchu Science Park - Awarded a badge for establishing and managing certified breastfeeding rooms - Awarded the Top Honor for an Accredited Healthy Workplace - Awarded for Excellence in Landscaping and Environmental Protection - Recognized as one of the Top 100 Sustainable Enterprises in Asia by Channel NewsAsia

2017	· Fab 1 received the Excellence in Safety and Health Award from Hsinchu Science Park · Fab 2 received the Outstanding Energy-Saving Manufacturer Award from the Ministry of Economic Affairs · Received the Excellence in Green Procurement Award for Private Enterprises and Organizations in Hsinchu City · Received the Excellence in Occupational Safety and Health Promotion Award by the Hsinchu Science Park · Received the Excellence in Workplace Equality Promotion Award by the Hsinchu Science Park
2018	· Chairman Miin Wu was awarded Ernst & Young Entrepreneur of the Year and Business Paradigm Entrepreneur of the Year · Fab 2, Fab 5, and the Testing Plant passed the Responsible Business Alliance Validated Assessment Program (RBA VAP) audit and obtained the Platinum Certification · Fab 2 received the Outstanding Energy-Saving Manufacturer Award from the Ministry of Economic Affairs · Awarded the Excellence in Green Procurement Award for Private Enterprises and Organizations in Hsinchu City · The Head Office and Fab 1 won the Badge of Accredited Healthy Workplace · Received the Creativity Gold Award for Healthy Workplace – Award of Excellence
2019	· Received the Annual Sustainable Elite Award in the first SGS CSR Award · Received the National Excellent Healthy Workplace – Paradigm in Health Award from the Health Promotion Administration, Ministry of Health and Welfare
2020	• Received the Annual Sustainable Elite Award in the second SGS CSR Awards • Received the Breastfeeding Room Certification - Award of Distinction from the Public Health Bureau, Hsinchu City in 2020 • Awarded Excellence in Landscaping and Environmental Protection in 2020 • Received the Excellence in Workplace Equality Promotion Award from the Hsinchu Science Park in 2020 • Fab 2, Fab 5, and the Testing Plant passed the Responsible Business Alliance Validated Assessment Program (RBA VAP) audit and obtained Platinum certification

2.4 External Participation

Macronix upholds its business philosophy of Honesty, and actively participates in external associations, providing recommendations to companies, peers, and the industry through good interactions. The Company promotes exchanges and development of the business community, government offices, and academia. Macronix's important actions and contributions to different organizations are listed below:

Name	Title	Action/Contribution
Taiwan Electrical and Electronic Manufacturers' Association	Member	Macronix offers suggestions, promotes the collective interests of fellow members, functions as a bridge between the industry and the government, and promotes industrial development.
Allied Association for the Science Park	1. Director 2. Convener of the Health and Safety Committee 3. Vice Convener of the Environmental Protection Committee 4. Convener of the Public Relations Committee	1. Macronix contributes to the discussion, decision, and execution of the association's operations. 2. Macronix leads the discussion, decision, and execution of work related to occupational safety and health and risk management in the science park. 3. Macronix communicates, coordinates, researches, participates, and provides services related to environmental protection. 4. Macronix promotes public relations for the science park and functions as a communication platform with the media.
Chinese National Association of Industry and Commerce, Taiwan	Director	Macronix offers suggestions, promotes collective interests of fellow members, functions as a bridge between the industry and the government, and promotes industry and commerce development.

Friends of the Second Special Police Corps, National Police Agency	Committee Member	Macronix cooperates with the police to enhance and promote crime control and prevention.
North consortium, Taiwan Occupational Safety & Health Management System (TOSHMS), Ministry of Labor	President of North Consortium	1. Macronix shares its experience of winning the National Labor Safety Award. 2. Macronix promotes cross-industry education and awareness of labor safety issues and inspires creative solutions for promoting workplace safety.

Macronix's External Participation

Corporate Governance	Economy	Society
◎ Computer Audit Association	◎ Chinese National Association of Industry and Commerce, Taiwan	◎ Friends of the Second Special Police Corps
◎ The Institute of Internal Auditors	◎ Taiwan Stock Affairs Association	◎ Taiwan Association of Occupational Health Nurses
	◎ Accounting Research and Development Foundation	◎ High-Tech Industry Salary Association
	◎ Chinese International Economic Cooperation Association	◎ Taiwan Union of Nurses Association
Technology and Industry		
GSA		
JEDEC Fee		
SEMI TAIWAN		
WSTS		
Chinese Institute of Engineers		
The Electronics Devices and Materials Association		
Taiwan CIO Association		
Monte Jade Science & Technology Association of Taiwan		
Taiwan Electrical and Electronic Manufacturers' Association		
Taiwan Society for Precision Engineering		
Chinese Society for Management of Technology		
The Allied Association for Science Park Industries		

3. Sustainable Development Strategy

The key electronic components produced by Macronix have enriched human lives. As a member of the global market, we insist on sustainable management and are committed to our responsibilities as a corporate citizen of the world. We strive to create a better future by leveraging our advanced technological capabilities to assist our clients in creating excellent products.

To realize sustainable corporate management, Macronix continues to elevate shareholder rights and is committed to its duties as a global corporate citizen as it cares for the environment and conservatively uses natural resources. We have proactively pursued all aspects of the Responsible Business Alliance® Code of Conduct (RBA® CoC) and passed the RBA VAP with flying colors in 2020, contributing to society through scientific education and promotion. This shows that Macronix takes CSR seriously and is committed to sustainable development.

To fulfill our commitment, we strive to:

- ◆ Go beyond compliance with regulatory requirements and enhance our performance in terms of environmental, occupational safety and health, as well as risk management.
- ◆ Nurture a working environment with a well-planned and well-run human resources management system and related practices.
- ◆ Meticulously commit to sustainable supply chain management that is fully compliant with international standards, laws, and customer requirements.
- ◆ Increase our social care and respond to global trends. Macronix prohibits the use and purchase of conflict minerals. It tracks the source of gold (Au), tantalum (Ta), tin (Sn), tungsten (W), cobalt (Co) to ensure that these materials come from eligible refineries and not from "conflict minerals zones"; Macronix also requires its suppliers to meet this requirement in order to satisfy customer needs
- ◆ Promote science education in order to cultivate innovation among the younger generation and expand our contribution to society.

3.1 Sustainable Development System

Corporate Social Accountability Policy

Macronix's first issue of Corporate Social Responsibility (CSR) Policy was approved in 2008 by the president of the Company and published on the Company's electronic bulletin board. All of our new employees are required to undergo SA8000 and RBA® CoC training. In particular, the CSR Policy requires Macronix and its employees' to: Uphold labor rights, respect human rights, provide a safe, healthy, and amiable working environment, to conservatively use the natural resources, promote science education, encourage innovative research and development, protect shareholders' rights, actively contribute to society, and persist in sustainable management.

The CSR Policy* implemented by Macronix comprises of the following:

- (1) Fully comply with national laws or regulations, the agreed customer requirements, and the applicable social responsibility requirements that subscribes.
- (2) Prohibit employing of child labors, nor engaging in involuntary labors.
- (3) Conduct the Due Diligence on our suppliers/subcontractors, including service provider.
- (4) Provide our employees a safe, healthy, and amiable working environment.
- (5) Respect the freedom of collective bargaining, association, and peaceful assembly, and do not allow any discrimination on racial difference, religious belief, and gender, etc.
- (6) Esteem our employees, and do not allow ruthless punishment measures.
- (7) Act honestly, and groundedly, ethically and refuse any means of improper advantage violate business integrity.
- (8) Comply with the Responsible Business Alliance (RBA) Code of Conduct, and continue improving through the management system.

*: This version was revised on March 30, 2018

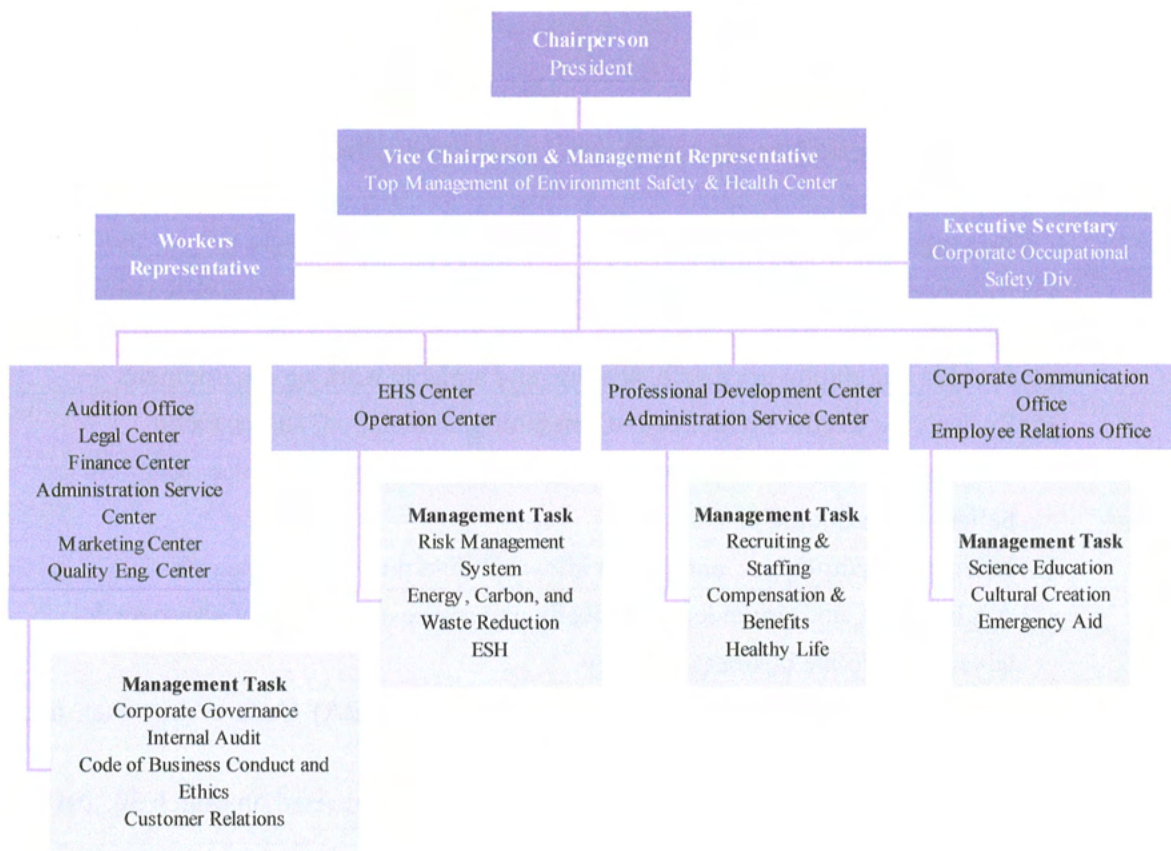
Corporate Social Responsibility Organization

Macronix's President currently serves as a member of the Board of Directors. The Company's EHS Center, Administration Service Center, and Professional Development Center jointly carry out CSR work. The President serves as the chairman, the highest

executive of the Safety & Health Center as the management representative, and committee members, who are representatives of the Company's cross-department center or business groups. They encourage the performance team to continuously increase its commitment to CSR-related tasks, ensure that Macronix complies with company and customers' relevant regulations, integrate cross-department resources for promoting and maintaining effective CSR operations, and provide employees with operational recommendations and consultation services to maintain and continuously improve the Company's operating systems.

Macronix's CSR Report Execution Task Force is based on the Social Performance Team, and has compiled Macronix's CSR Report since 2012.

CSR Report Execution Task Force Structure



3.2 Stakeholder Engagement

3.2.1. Stakeholder Identification and Interaction

Macronix recognizes that engaging in long-term conversations with stakeholders is necessary to improve its understanding of the community, and thus make proper decisions and reduce social conflicts. Macronix understands and responds to stakeholders' reasonable expectations for the Company topics of concern through a number of communication channels; such communications with stakeholders are reported to the Board of Directors annually. All stakeholders can access the Company's contact information and communication channels through the "Stakeholders Section" or "Contact Us" on the company website (<http://www.macronix.com>), and ask questions or express opinions.

Macronix continue to build a robust CSR value chain system. We work with our employees and corporate partners to understand and respond to stakeholders' expectations regarding Macronix's fulfillment of social responsibilities. This also serves as an educational tool for the Company to learn more about trends, risks, and development opportunities. The engagement of stakeholders will help us transform our promises into actions that will positively contribute to the society and environment. Although this is a long-term challenge, Macronix is committed to put effort into integrating its supply chain and cooperating with governance policies and guidelines to accomplish the CSR goals.

Stakeholders referenced in our CSR reports are identified according to the Taiwan Stock Exchange Corporation (TWSE) requirements regarding stakeholders for listed companies. They are identified by interviewing personnel from the public relations office, shareholder services office, and related departments, and by referencing the level of concern, responsibilities, influence, diversity of perspectives, and tension identification pertaining to each stakeholder.

Interactions and Responses to Macronix's Stakeholders in 2020

Stakeholders	Communication channels	Topics of Concern	Highlights and results of communication in 2020	Subject to Influence (V) or Concern (*)	
Investors	Investor seminars (quarterly) Shareholders' meeting (at least once a year) Investor seminars/forums held by securities firms (irregular) Investor mailbox/website comments/phone calls (ad hoc)	Shareholder equity Corporate Governance Overview of Investments Innovative R&D Industry development Intellectual Property Rights Dividends distribution Corporate operations Product price Product use	* Held 4 investor seminars * Held 1 shareholder meeting, during which all motions were approved by a vote * Participated in 19 investor seminars held by securities firms or foreign institutional investors * The chairman or the designated person responded to shareholders during the annual shareholders' meeting * Responded to topics of concern to investors by phone or mail	Economy	V *
				Environment	
				Society	
Customers	Customer satisfaction survey (annual) Suppliers' conference (at the request of customers) Customer communication platform (available 24-7) Visits in person (as necessary) Supplier audits (at the request of customers)	Product lead time/price/technology/quality Future direction of products Customer application services Green Products Corporate Social Responsibility Business Continuity Management	* Completed the renewal of the IECQ QC080000 certificate of 2018 to maintain its effectiveness * Passed the RBA VAP audit with the highest score possible * Responded to a total of 1,856 customer CSR and GP questionnaires or self-evaluation forms * Customer satisfaction survey response rate > 77% * Continued to maintain the ISO 9001 certification * Periodically provided customer purchase order and delivery information, and provided the quantity for supply and lead time within price validity period during quotation	Economy	
				Environment	V *
				Society	*

			* Periodically updated Macronix's product road map * Abnormal event reporting and risk management procedures were completed according to plans and effectively carried out in compliance with customer requirements		
Employees	Various open-discussion meetings (held periodically and ad hoc) "No Topic is Off Limits" suggestion box (available 24-7) Reporting hotline (available 24-7) Printed copies and electronic bulletin boards (to communicate information as necessary) Employee Relationship Management Portal (available 24-7) Learning map platform (available 24-7) Performance evaluation procedure (annually) Health consultation/promotion (held periodically and ad hoc) Employees seek advice in person or by phone (ad hoc)	Employee Communication Labor/Management Relations Compensation & Benefits Human rights policy Training System Performance evaluation results Occupational safety and health Key points of the amendment to the Labor Standards Act Pension calculation/qualifications of retirement pension	* Number of open-discussion meetings held: 468 orientation training sessions for new employees. Department discussions (held by each department as necessary). 5 labor/management meetings (including 1 extraordinary meeting). 3 Welfare Committee meetings (including 1 extraordinary meetings). * Received 55 cases from the "No Topic is Off Limits" suggestion box and reporting hotline with a 100% closing rate * Received 0 sexual harassment complaints * Periodically organized on-the-job occupational safety training; ESH offers consultation for employees at any time * Planned the health promotion plan for the following year based on employees' health condition, opinions regarding the annual health exam, and current events * Physicians provide consultation services for the entire company 9 times a month * A total of 40 health promotion activities and seminars were attended by a total of 3,102 employees	Economy	V
				Environment	
				Society	V *

Suppliers	Suppliers' conference (annually) Supplier audits (performed annually based on risk levels) Supplier evaluation (quarterly and annually) Quality improvement meeting (ad hoc) Material supply/demand tracking (periodically and ad hoc) Contractor training courses (as necessary) Contractor coordination organization meetings (as necessary)	Occupational safety and health Supplier evaluation Green product requirements Corporate Social Responsibility Compliance with Business Ethics Quality improvement procedure Supply and demand of important materials	* Contractor education and training, as well as coordination organization meetings are completed before operations in accordance with regulations * We planned audits of 41 suppliers and HR outsourcing companies in 2020, and completed 40 supplier audits. One company was not audited due to expiration of the contract. * Held 1 suppliers' conference * Have Maintained the AEO certification for 11 years * 100% of suppliers received a score of 80 points or above in the supplier rating * Approximately. 35% of raw materials are procured in Taiwan	Economy	V *
				Environment	
				Society	*
Local Community	Community resident communication/phone calls (ad hoc) Neighborhood residents' assembly (as necessary) PUBCSR communication mailbox Charity organization	Odor Noise Corporate sponsorship/funding Charity event participation	* Received 0 reports from community residents * Donated over NT\$2.45 million	Economy	
				Environment	V *
				Society	V *
Government	Official document delivery (as necessary) Participation in presentations/promotions/seminars/forums (ad hoc) Competent authority audits (as necessary) Phone call or e-mail (as necessary) Communication through the Allied Association for Science Park Industries and Chinese National Federation of Industries (as necessary)	Compliance Corporate Governance Labor/Management Relations Occupational safety and health Greenhouse gas emissions reduction Water resource management Waste Management	* Increased disclosures on the Company website to increase information transparency * Compliance with laws and regulations of competent authorities at each level, and cooperation with supervision and audits * Participation in presentations, promotions, seminars, forums, or lectures organized by the competent authority * Periodic compliance inspections and report compliance-related matters on a regular basis	Economy	V *
				Environment	V *

	Visited competent authorities (as necessary)	Water Rationing and Drought Preparation Plan Effect of the new version IFRS (accounting principles) on the company Employee benefits and average salary Key points of the amendment to the Labor Standards Act Impact of the U.S.-China Trade War Employee overload management COVID-19 prevention and management	* Proposed response measures, and revised related systems and specifications in coordination with the “one fixed day off and one flexible rest day” labor policy reform and methods adopted by the IC industry at the beginning of the year * Total greenhouse gas emissions in 2020 decreased by 10% compared with 2011 * Regularly track and manage the use of water resources and environmental, safety, and health management indicators – Process water recycling rate reached the goal for 2020 * Conduct annual inspections of all waste management contractors, and strengthen auditing and management of waste disposal contractors' vehicles * The competent authority conducted 74 occupational safety and environmental protection audits; no major penalties were imposed * A total of 569 nighttime employees received special medical check-ups * Established the Epidemic Prevention Office and measures in accordance with the Central Epidemic Command Center's relevant regulations	Society	V *
Media	Press releases (periodically and ad hoc) Investor seminars (quarterly)	Operational performance: General information about the company	* Published 16 press releases on revenue and investor conferences, 2 press releases on products, material information of the Company or supplemental data, and invited or organized press conferences 3 times.	Economy	*
				Environment	*
				Society	*

			* There were a total of 1,943 related news articles in 2020		
Schools	Registration website Campus promotion Facebook fanpage Macronix Science Awards Association annual meeting	Macronix Golden Silicon Awards Macronix Science Awards	* The 20th Macronix Golden Silicon Awards: A total of 303 teams registered and awards influenced 25,645 people * The 19th Macronix Science Awards: A total of 661 works were submitted and awards influenced 7,514 people * A total of 37 members participated in the welcome party of the Macronix Science Awards Association	Economy	
				Environment	
				Society	*

3.2.2. Identifying and Prioritizing Material Issues

Relevant Issues

In order to fully understand the issues that concern both internal and external stakeholders, Macronix's CSR Report Execution Task Force determined important for the Company CSR-related issues. They are determined through interacting with stakeholders, gathering their questionnaire surveys responses, collecting meeting records, opinions and conducting interviews. The impact of these issues on Macronix was then determined internally. After all the data was compiled, the key issues were then identified and ranked in this year's CSR report by using the Task Force's evaluation method.

* In 2020, the degree of impact was evaluated by the Task Force instead of by stakeholders.

Stakeholder Opinions Compiled for the 2020 CSR Report

Stakeholders	Relevant Issues -Compilation Method	Scoring method
Investors	Statement recording, negotiations	(1) Directly converted to scores for relevant issues (2) Questionnaire filled out by representatives of the Stock Affairs Office
Customers	Negotiation, questionnaire survey	(1) Questionnaire filled out by representatives of the district business offices (2) Customers' questionnaire responses (the previous survey results were used)
Employees	Questionnaire survey	Filled out by labor representatives of the labor/management conferences and Welfare Committee
Suppliers	Questionnaire survey	Distributed to and completed by suppliers on August 28, 2020
Local Communities	Negotiations	Feedback from neighborly visits was directly converted into a score

Media	Negotiation, questionnaire survey	Filled out by representatives of the Corporate Communication Office
Government	Inquiry	Government's summarized issues of concern during the year based on stakeholder communication policies and results
Schools	Inquiry	Not scored, please refer to the social welfare chapter

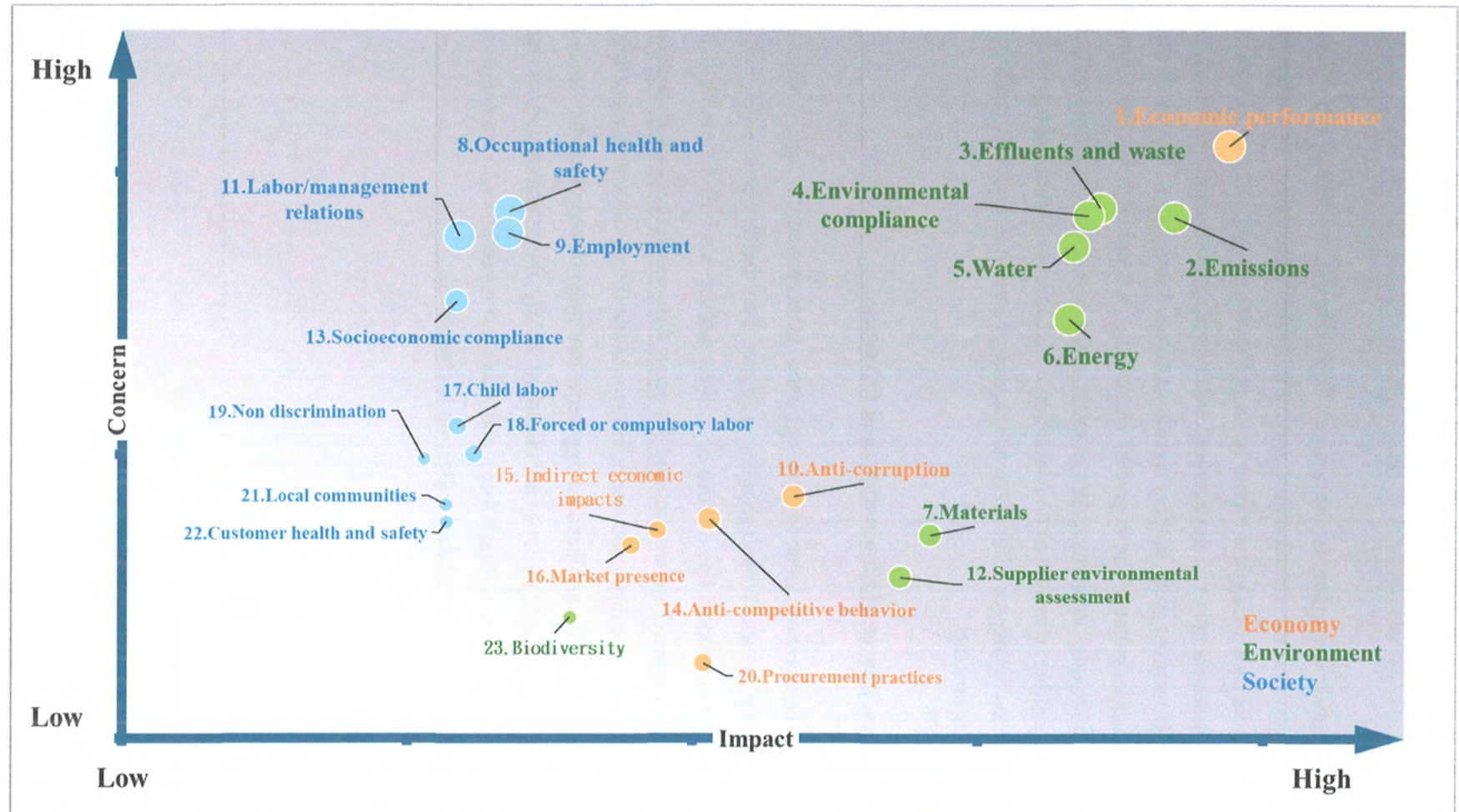
Ranking

For quantitative assessment of the degree of concern, e.g., a score of 0-5 points is given for each issue in the questionnaire survey to evaluate the effect on stakeholder assessment and decision making; a higher score represents a higher degree of concern. For qualitative assessments (e.g., engagement experience, opinions and interviews, and meeting /opinion records), stakeholders' issues of concern are given 5 points directly. For quantitative assessment of the degree of impact, e.g., a score of 0-5 points is given for each issue in the questionnaire survey to evaluate the economic, environmental, and social impact (positive or negative) on Macronix; a higher score represents a greater of impact. The scores for degree of concern and degree of impact are added together and then averaged for ranking.

Threshold Values, Degree of Elimination, and Coverage

Regarding the threshold value for material issues in this report, the top 10 issues are considered material issues. When the rating is higher than the threshold value but the degree of concern or impact has a score of 0, then discussions will determine if it is included as a major topic. This situation did not occur this year. Issues that are excluded by the threshold value are discussed one by one to decide if they are worth reporting. If issues ranked 11 and above are listed among items that must be reported, the issues are reported but the management policy is not disclosed. Lastly, the selected material issues are discussed by the CSR report task force, and the report is presented to a management representative for approval after data collection is completed.

Issue Ranking (only the top 23 are listed)



Material Aspects and Boundary Setting

Category	Issue	Ranking	Previous Year Ranking	Difference	Material Issues	Impact Boundaries			Comments
						Internal	Customers	Suppliers	
Economy	Economic performance	1	2	↑	V	V			
	Market position	16	12	↓					
	Indirect economic impacts	15	25	↑					
	Procurement practices	20	27	↑	*				
	Anti-corruption	10	14	↑	V	V			
	Anti-competitive Behavior	14	17	↑					
Environment	Materials	7	16	↑	V				
	Energy	6	9	↑	V	V			
	Water	5	7	↑	V	V			
	Biodiversity	23	30	↑					
	Emissions	2	1	↓	V	V			
	Effluents and wastes	3	3	≡	V	V			
	Compliance with environmental protection laws	4	5	↑	V	V			
	Supplier Environmental Assessment	12	18	↑	*				
Society	Labor/employer relations	9	8	↓	V	V			
	Labor/management relations	11	4	↓		V			
	Occupational safety and health	8	6	↓	V	V			
	Training and education	27	21	↓	*				
	Employment diversity and equal opportunities	24	20	↓	*				
	Non-discrimination	19	15	↓	*				
	Freedom of association and collective bargaining	29	29	≡					
	Child labor	17	23	↑					
	Forced and compulsory labor	18	19	↑					
	Security Practices	32	31	↓					
	Rights of indigenous peoples	31	32	↑					
	Human rights assessment	26	28	↑					
	Local communities	21	26	↑					
	Supplier social impact Assessment	30	22	↓	*				
	Public policies	33	33	≡					
	Customer health and safety	22	13	↓					
	Marketing and labeling	28	24	↓					
	Customer privacy	25	11	↓		V	V		
	Compliance with social and economic laws	13	10	↓	V	V		V	

* Management guideline not disclosed because the material issue is not from 2020

4. Corporate Governance

Macronix upholds high corporate governance standards and complies with corporate governance principles, and continues to establish a good corporate governance system in accordance with the Corporate Governance Best-Practice Principles for TWSE/TPEX Listed Companies and the Company's Corporate Governance Principles. Ethical corporate management is Macronix's corporate culture. Macronix strictly complies with the law and attaches great importance to the protection of trade secrets and information security risk management. The Company established the Ethical Corporate Management Best Practice Principles and Code of Business Conduct and Ethics, in hopes of creating a business environment for sustainable development.

Macronix's Business Philosophy

Honesty

Macronix's Corporate Values

Innovation, Quality, Efficiency, Service, Team Work

4.1. Corporate Governance

Besides complying with the law, Articles of Incorporation, and the guidelines and resolutions of shareholder meetings and board meetings, Macronix complies with the following corporate governance principles:

- ◆ Protect shareholder equity
- ◆ Strengthen the Roles and Powers of the Board of Directors
- ◆ Utilize the Audit Committee's functions
- ◆ Respect stakeholders' rights and interests
- ◆ Increase information transparency and disclosure

Since 2003 to strengthen the operations of the Board of Directors Macronix sequentially established independent director seats and functional committees, such as the

Audit and Compensation Committees. In 2006 the Company changed the system of directors and supervisors selection system to candidate nominations.

All of this shows our determination in establishing a good corporate governance system. In recognition of our efforts, we were ranked in the top 5% of companies in the 2015 First Corporate Governance Evaluation for Listed and OTC Companies.

4.1.1. Governing Unit

Board of Directors

Macronix's Board of Directors makes corporate governance decisions. Board meetings are convened by the chairman/CEO, and the Board is comprised of 14 industry professionals, experts and scholars with practical and theoretical backgrounds in business, law, finance, accounting, electrical engineering, physics, and material engineering. There are four independent directors who oversee the execution of Macronix's operation plans based on their expertise and objectivity to ensure the Board is making quality decisions. Among the directors, 12 are men (86%) and 2 are women (14%). All directors are over 50 years old. Board meetings information is disclosed in the annual report, on Macronix's official website (<http://www.macronix.com>) and in the Market Observation Post System of Taiwan Stock Exchange.

Furthermore, in 1997, Macronix began internally handling matters related to company stock with a dedicated unit to manage shareholder affairs, address shareholder concerns, and promote a strong relationship with institutional investors. Therefore, we arrange visits to global institutional investors every year and hold an investor's conference each quarter to maintain transparent communications.

Macronix Corporate Governance Highlights

Scope	Highlights
Board of Directors	◆ Lead Taiwan's industry in purchasing director liability insurance (since 1999) ◆ Established independent director seats (in 2003) ◆ Adopted the candidate nomination system for electing directors (in 2006) ◆ Replaced the supervisor system with the Audit Committee (in 2009) ◆ Established the Nomination Committee to plan and review director and senior executive candidates (2019~)
Management Level	◆ Established the Compensation Committee to evaluate and approve the remuneration for high-level executives (since 2006) ◆ Prohibits the employment of relatives of high-level executives (fourth-degree) ◆ Set up operation goals and implementation of PDP performance evaluation
Internal Control	◆ Systematizes internal controls and self-check operation procedures ◆ Promotes a review system for audit operations ◆ Audit results are regularly reported to the Audit Committee and Board of Directors regularly

Compensation Committee

The Compensation Committee was first established on August 8, 2005 and was renamed to comply with the law on August 23, 2011. The Compensation Committee is formed by three independent directors and Director Chiang Kao as the convener. The committee met four times in 2020. Meetings information is disclosed in the annual report, on Macronix's official website (<http://www.macronix.com>), and on the Market Observation Post System of Taiwan Stock Exchange.

Audit Committee

Macronix's Audit Committee is formed by the following four independent directors, one of whom is a certified public accountant of the R.O.C. Besides executing items specified in the law, the Audit Committee is responsible for the proper representation of the Company's financial statements, appointment (or dismissal) of

certified public accountants, their independence, and performance, effective implementation of the Company's internal control, the Company's regulatory compliance, and the control of existing or potential Company risks. The committee met six times in 2020, and meetings information is disclosed in the annual report, on Macronix's official website (<http://www.macronix.com>), and the Market Observation Post System of Taiwan Stock Exchange.

Name	Education	Previous Experience
Chiang Kao	Oregon State University Ph.D., Forest Management	Professor, Department of Computer Science, Southwest Texas State University President, National Cheng Kung University
Yan-Kuin Su	National Cheng Kung University Ph.D., Electrical Engineering	IEEE Academician SPIE Academician Professor and Dean of the Department of Electrical Engineering, Dean of Research and Development, and Dean of Academic Affairs at National Cheng Kung University Director, Engineering Department, National Science Council President, Kun Shan University
John C. F. Chen	National Cheng Kung University Bachelor of Accounting & Statistics	Certified Public Accountant Chairman, Diwan & Company
Tyzz-Jiun Duh	National Taiwan University Ph.D., Forestry	Director-General, Department of Commerce, MOEA Director-General, Department of Industrial Technology, MOEA Director-General, Industrial Development Bureau, MOEA Minister, Ministry of Economic Affairs Minister, National Development Council Vice Premier, Executive Yuan

Furthermore, according to the Code of Business Conduct and Ethics of Macronix, its general manager, senior managers, and financial managers shall immediately report any conflict of interest or any concern of a potential conflict of interest to the Audit Committee.

Apart from the general manager, senior managers, and financial managers, Macronix employees shall disclose any occurring or potential conflict of interest to their supervisors or senior managers in writing.

Nomination Committee

Macronix established the Nomination Committee on January 22, 2019, which is formed by the chairman and two independent directors. Chairman Miin Wu is the convener. The committee met three times in 2020. Meetings information is disclosed in the annual report, on Macronix's official website (<http://www.macronix.com>) and in the Market Observation Post System of Taiwan Stock Exchange.

4.1.2. Internal Audit

In order to strengthen internal audit mechanisms, Macronix established a dedicated internal audit unit, which is maintained as an independent department with five full-time auditors directly reporting to the Board. The auditors are responsible for reporting audit operations to the Audit Committee and also attend board meetings for reporting.

Internal audit operations are generally carried out according to the audit plan approved by the Board, and the unit periodically reviews the self-assessment operations as part of the internal control systems conducted by various divisions. The internal audit unit will also review the quality of the internal control operations and report the compiled self-assessment results to the Board.

4.1.3. Ethical Corporate Management Rules

The Company has always complied with laws and regulations and has also devised risk management mechanisms. In 2020, Macronix did not violate any antitrust laws or engage in unfair competition practices and was not involved in any related litigation.

We have always upheld our business philosophy of Honesty and have thus formulated and published the Ethical Corporate Management Best Practice Principles, Code of Business Conduct and Ethics and Macronix CSR Policy, all of which serve as behavioral regulations for our directors, various levels of management personnel, and employees. We also expect the directors, managers, and employees of our affiliates to jointly adhere to the principle of honesty in running their businesses.

Besides establishing multifunctional committees under the Board of Directors, Macronix has also established the Committee for the Ethical Corporate Management Promotion under management executives, in which the president serves as the chairman and level-1 supervisors of all departments are committee members. The committee aims to establish an ethical corporate management policy that will be submitted for discussion during Board meetings. The policy will be implemented in accordance with the law and its implementation status reported to the Board at least once a year.

Macronix upholds the business philosophy of Honesty. The Company has established and implemented corporate governance and risk management mechanisms based on the values of innovation, quality, efficiency, service, and team work, thereby creating a business environment for sustainable development. Concrete measures are as follows:

1. Comply with laws and regulations.
2. Pragmatically implement company policies and the code of ethics.
3. Establish risk management mechanisms.
4. Establish a violation reporting system and protect reporters in accordance with the law.
5. Enhance on-the-job and ethics training.

Code of Business Conduct and Ethics

The Board of Directors approved the Code of Business Conduct and Ethics (the "Code") for directors, managers at all levels, and all employees.

The purpose of the Code is to deter wrongdoing and to promote:

- (1) honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- (2) full, fair, accurate, timely and understandable disclosure in reports and documents filed with, or submitted to, the Securities and Exchange Commission and in other public communications made by the Company;
- (3) compliance with applicable governmental laws, rules, and regulations;
- (4) the prompt internal reporting to an appropriate person or persons identified below of violations of this Code; and
- (5) accountability for adherence to this Code.

To ensure that all Macronix employees understand the Ethical Corporate Management Best Practice Principles and this Code, all new employees must receive training and will be tested during their orientation. Furthermore, Macronix employees receive annual training of the Ethical Corporate Management Best Practice Principles and the Code, so that the principles and the Code are consistently implemented. Violation of the Ethical Corporate Management Best Practice Principles and the Code is included as an evaluation item in annual employee performance evaluations.

Macronix's anti-corruption policies state that "Company personnel must not use Company property, information, or position to obtain opportunities for personal benefits, and they must not use Company property, information, or position for personal benefits or to compete with the Company. Company personnel have a responsibility to the Company to advance its legitimate interests when business opportunities arise." We have also developed ethical risk assessments for each department, which are carried out on a regular basis and cover all departments of the Company. To date, no cases of corruption have been reported.

To implement ethical corporate management and ethical behavior, Macronix annually arranges courses for directors and online courses for employees and the Company regularly organizes educational courses on trade secrets, domestic and international data privacy regulations, information security management, and prevention of insider trading for the purpose of raising awareness on corporate ethics and compliance. In 2020, the Company achieved 100% completion rate of the educational and training courses related

to the Ethical Corporate Management Best Practice Principles, with approximately 18,468 participants and 5,853 training hours in total. Suppliers are also invited to the courses annually to ensure that they understand the regulations of Macronix's ethical corporate management. In 2020, a total of 102 supplier participated and the number of training hours amounted to 408.

4.1.4. Confidential Information Protection

In recent years, Macronix has emphasized the importance of information security in protecting its intellectual property and customer confidentiality. Based on the idea of our general manager to "prevent information security incidents from happening before they occur", we established an Information Security Committee led by the Company's vice president and comprised of top supervisors from various divisions and business units to oversee matters related to information security.

Trade secrets are the lifeline of technology companies. We revised confidential information protection related management procedures and regulations in our policy, and also classified and labeled information assets throughout the Company. We utilize a variety of information security mechanisms to properly protect our trade secrets and confidential information, thereby protecting the interests of the Company, shareholders, employees, customers, and suppliers.

Macronix holds educational and training sessions, as well as promotional campaigns, to raise awareness on information security. For example, Macronix offers training programs for new recruits, holds information security challenges, issues monthly information security e-newsletters, and has established information security websites. With the goal of encouraging everyone to be responsible for information security, Macronix has internalized its practices into an action plan aimed at protecting the Company's intellectual property and confidential information. Furthermore, courses on trade secrets have been included in annual employee education and training. The courses build employees' concept of trade secrets protection through explanations and legal experts' sharing of professional knowledge, related cases, and practices.

In terms of information security, Macronix also included contractors/suppliers into the scope of information security protection. Measures include but are not limited to the following: Before external personnel enter the Company, they must complete our information security course and test to ensure information security. In addition, Macronix has established information security incident reporting and handling procedures so that information security incidents can be immediately reported and handled. Macronix has also purchased information security insurance to reduce the impact of information security

incidents.

4.1.5. Compliance with Regulatory Requirements

Macronix has always complied with laws and regulations. In 2020, Macronix was not involved in any litigation related to employee health or violation of safety regulations. We also did not receive any severe fines or punishment for violations pertaining to environmental laws and/or regulations, nor did we receive any severe fines or punishment for violations pertaining to social and economic laws and/or regulations. “Severe” means “cumulative fines for a single incident reaching NT\$1 million or above” according to Article 4, Paragraph 1, Subparagraph 26 of the Taiwan Stock Exchange Corporation Procedures for Verification and Disclosure of Material Information of Companies with Listed Securities.

Macronix has also set up a regulatory compliance unit that offers consultation services, supervises and implements regulatory compliance, and integrates the business philosophy of Honesty in its management by obeying rules and applying knowledge into practice.

Again and again, we emphasize the importance of self-discipline and top-down compliance with laws and regulations (including the Securities and Exchange Act, Company Act, Labor Standards Act, Anti-Corruption Act, Fair Trade Act, Money Laundering Control Act, Act of Gender Equality in Employment, Personal Information Protection Act, regulations for import/export management, and environmental protection; we also frequently promotes relevant regulations and policies.

Macronix offers various channels to encourage learning and continuing education. For example:

- ◆ Macronix Academy: Has comprehensive facilities and professional equipment (including: an audiovisual room, training classrooms, computer classrooms, international lecture halls, and a library). Provides a comfortable reading environment where employees can borrow a variety of books.
- ◆ Macronix e-Academy: Offers online courses (including topics such as the Personal Information Protection Act, Trade Secrets Act, or sexual harassment prevention) so that employees can arrange their schedule without being subjected to space and time restrictions.
- ◆ External training courses: Encourage employees to leverage resources and

engage in learning. For example, employees can use the libraries at National Tsing Hua University for free, or they can be informed of governmental or private courses through Macronix e-Academy's external course announcements.

4.2 Risk Management

Macronix is the world's leading manufacturer of NVM. We manage risks through proactive, preventive management procedures that were established with regard to information security, intellectual property, standards of behavior, ethics, operations management, loss prevention, supplier management, environmental protection, safety and health, employee benefits, and health maintenance. In order to protect the Company's assets, ensure employee health, and care for the rights and interests of stakeholders, we have integrated our business policy into our EHS policies, with hopes of achieving sustainable development. Furthermore, in response to internal and external technical data, the Company has adopted the following measures after conducting simulations and risk analysis:

Material Issues	Risk Assessment Item	Potential Risks	Risk Management Policy or Strategy
Environment	Environmental protection and ecological conservation	Environmental protection management and pollution prevention	Introduced and passed the ISO 14001 Environmental Management System Certification. We ensure that our environmental management systems fully comply with the Plan-Do-Check-Act (PDCA) operations of the ISO system to maintain a healthy and safe environment, and continuously make improvements to reach our goal.
Environment	Environmental protection and ecological conservation	Energy and climate change management	1. Macronix is dedicated to reducing energy use and consumption every year. We follow the instructions provided by the Bureau of Energy, Ministry of Economic Affairs each year to report our energy conservation audit system for energy users 2. In response to the trend of greenhouse gas control and reduction in the supply chain due to global warming, we planned for greenhouse gas checks, control, and reduction, and described the process of compiling ISO14064-1 GHG inventory in the report. Please refer to the chapter on energy and climate change management for the impact identification, assessment, and climate-related risk management process.
Society	Occupational safety and health management	The spread of COVID-19 influenced employee attendance and operations	1. Convened the epidemic prevention meetings to formulate anti-epidemic policies and various management measures, and to establish a standard operating procedure, a reporting mechanism, and countermeasures. 2. Assigned dedicated staff to track and pay attention to the epidemic prevention and management measures. Daily pop-ups on computers remind employees of health and safety anti-epidemic measures, and rolling reviews are conducted for the results inspection.

Material Issues	Risk Assessment Item	Potential Risks	Risk Management Policy or Strategy
Society	Product safety	Material supply cut off	1.Establish emergency procurement procedures 2.Prepare a safety stock 3.Audit suppliers' capability regarding business continuity 4.Continue to develop alternative suppliers 5.Sign supply contracts with major suppliers
Society	Product safety	Cyber attacks	1.Block malicious attacks with a firewall 2.Use a mail and website filtering system to intercept malware 3.Regularly update computer software and deploy endpoint protection software 4.Regularly back up important data 5.Cyber-attack simulation drills
Society	Product safety	Contractor's supply chain cut off	1.Check the coordination and distribution of delivered materials 2.Estimate contractor's recovery time for capacity, and work-in-progress control 3.Backup contractors
Society	Product safety	Information system interruption	1.Install Uninterruptible Power Supply (UPS) 2.Remote backup 3.Backup data 4.Information system interruption simulation drill
Society	Product safety	Water outage	1.Sign a service agreement with water wagon suppliers 2.Water conservation and drought preparation plan for fabs 3.Water storage and mutual support between fabs 4.Water restrictions emergency response drill
Society	Product safety	Power outage	1.The Park offers power supply design with double feeders 2.Emergency power generators and support machinery; clean room temperature and humidity; and delivery resources 3.Diesel fuel resource distribution and procurement priority 4.Abnormal power supply emergency response drill

Society	Product safety	Earthquake	1.Seismic resistant design of buildings and machines 2.Seismic resistance improvements: Stocker seismic reinforcement; purchase of new machines with active seismic resistance and fastening devices, steel cylinder seismic reinforcement, clean room automated handling system seismic improvement 3.Sign human resource service agreements with major suppliers 4.Earthquake emergency response drill
Society	Product safety	Fire	1.Machine CO2 fire extinguisher system 2.Very early warning smoke detectors 3.FM certified fireproof lockers 4.Fire prevention improvements: Replace plastic flammable pipelines each year; fireproof the supply end of flammable gases; replace CO2 fire extinguisher systems that are about to expire; upgrade explosion prevention equipment; improve environment fireproofing; and gas cabinet automated fire extinguishing system 5.Fire accident emergency response drill
Society	Product safety	Green product management	1.Deliver products to ISO 17025 certified, credible domestic and foreign laboratories for testing 2.Green product instruments self-inspection 3.Suppliers provide documentary proof of non-use of environment-related substances 4.Identify new law amendments and periodically check regulatory compliance 5.Supplier communication and audit management 6.Qualified materials and supplier management system 7.Green product-related training courses are organized each year
Society	Product safety	Conflict minerals	1.Non-use of Conflict Minerals Policy 2.Suppliers provide documentary proof of non-use of conflict metals 3.Identify and amend conflict minerals related management rules and periodically check compliance 4.Supplier non-use of conflict minerals training and audit management 5.Supplier management system for non-use of conflict minerals
Corporate Governance	Society, economy, and compliance	Information Security	Establish a dedicated information management unit and related management procedures to protect the safety of computer systems and prevent the risk of data leakage, providing the basis for compliance by employees and responsible units.

Corporate Governance	Society, economy, and compliance	Laws and Code of Ethical Conduct	All new employees receive training and evaluation during their orientation.
Corporate Governance	Society, economy, and compliance	Anti-corruption	1. Regularly conduct ethical and social responsibility risk assessments for each department 2. Regularly organizes courses on trade secrets, domestic and international data privacy regulations, information security management, and prevention of insider trading

4.3 Innovation

4.3.1. Importance of Innovation

Currently, most of Macronix's flash memory products are NOR Flash. With excellent technology and quality, the product range covers various storage capacities, including 3V or 1.8V operating voltage, Serial or Parallel interfaces, and mainstream or niche specifications. Macronix has all products ready, and they are widely adopted by customers around the world.

In addition to NOR Flash, the independently-developed NAND Flash product line has stable quality and mass production, making Macronix one of the few suppliers of both NOR Flash and NAND Flash in the world.

Macronix has also passed the IATF 16949 certification of the quality management system in the fast-growing automotive electronics industry. The Company has equally managed to win the reliability standard AEC-Q100 certification for the two main product categories, namely NOR Flash and NAND Flash. Passing the two most important standards in the electronic IC supply chain makes Macronix an important partner of the first-class automotive electronics manufacturers.

Successful Developed Technologies or Products

In 2020, Macronix successfully implemented product and technology innovations to increase its superior product competitiveness.

(1) Technology innovation

- ◆ Innovation and verification of 3D NAND Flash IC and control technology.

(2) Product innovation

- ◆ Suitable for automotive electronic applications, the innovation and mass production of the new-generation, ultra-fast NOR Flash.
- ◆ Macronix's mature proprietary 0.11 μm embedded non-volatile memory and 0.18 μm BCD (Bipolar-CMOS-DMOS) technologies are integrated to provide foundry services in MCU and analog IC related markets.

Plans for New Products Development

(1) Non-volatile memory products

The Company makes good use of the advantages of the new equipment in the 12-inch wafer lab to create a higher-level R&D environment, and continues to develop the following three core technologies of the new generation. The Company will create the innovative memory product series and combinations based on this foundation.

- ◆ 3D NAND Flash: First-generation plan.
- ◆ 2D NAND Flash: 19-nm plan.
- ◆ NOR Flash: 48-nm plan.

(2) Wafer foundry service

- ◆ Integrating Macronix's own embedded non-volatile memory logic platform technology into MCU and IoT markets
- ◆ Embedded ROM and OTP that are used in voice ICs.
- ◆ Bipolar-CMOS-DMOS (BCD) technology integrated with the embedded NVMs developed by Macronix for analog and smart power management ICs.

4.3.2. Intellectual Property Management

Macronix has long been devoted to the innovation, research, and development (R&D) of non-volatile memory technologies and products, and has always attached a high level of importance to protecting its intellectual property (IP) rights. Macronix has filed patent applications in various countries to secure its key technologies and abundant R&D achievements.

Outstanding Patents
◆ 302 patents obtained in 2020
◆ 8,320 patents were obtained worldwide as of the end of 2020
Affirmation of Patent Ranking
◆ According to Taiwan's corporate patent certifications, Macronix has been ranked in the top 100 since 2000 and ranked 22nd in 2020*
◆ According to the Patent Board of the United States, Macronix continued to be ranked in the top 100 from 2001 to 2019, and ranked 553rd in 2020.**

*Source: Intellectual Property Office, Ministry of Economic Affairs.

**Source: IFI CLAIMS Patent Services

4.4 Supply Chain Management

As a leading semiconductor provider in the world, Macronix works with a variety of supply chain partners in the industry, including about 1,500 manufacturers, agents, and contractors of materials, parts, photomasks, equipment, plant facilities, information and automated products, and semiconductor assembly and testing. To generate mutually beneficial outcomes, we select suppliers by placing equal importance on local suppliers and global supply chain partners to ensure our service quality, strengthen supplier cooperation, shorten the process of product development, enhance supply chain flexibility, and reduce unnecessary costs and carbon emissions during transportation. As of 2020, we had around 893 suppliers of raw materials and components, in which the amount of procurement in Taiwan accounted for 35% of our overall procurement amount (2019: 34%; 2018: 30%).

To manage the quality of material suppliers, Macronix aims to provide control and guidance in the following three aspects:

- (1) Supplier management system certifications: We require that our suppliers obtain international certifications such as ISO 9001, ISO 14001, and OHSAS 18001 with respect to their quality, environmental, safety, and health management systems to ensure that they protect the environment and improve their safety and health practices.
- (2) Supplier audit and counseling: We formulate annual audit plans every year to conduct on-site audits. When any deficiencies are discovered, we request that our suppliers submit improvement plans, wherein goals and deadlines are explicitly specified to meet our expectations.
- (3) Supplier management and supplier rating: We conduct performance evaluations on three dimensions: product quality, capability requirement of customers and risk management, and product delivery date. In 2020, 100% of the suppliers were rated 80 points or higher. For suppliers with a score of less than 80 points, the Raw Material Management Committee will carry out project improvements, counseling, auditing, as well as other measures.

In implementing CSR, we also take into account the participation of the overall supply chain, hoping to help our suppliers establish and raise their awareness and capabilities in Social and Environmental Responsibility (SER) by enhancing SER controls and training for our supply chain partners, as well as performing audits.

We hold true to the principles of creating value together with our partners and adhering to high standards of business ethics to protect employee and partner rights and dignity. We set up strict and vigorous health and safety standards to minimize any negative influences on the environment, safety, health, and our partners. In order to fulfill these promises, we work closely with employees and suppliers, and suppliers' employees to ensure that all CSR values are put into practice throughout the entire organization, thereby making CSR a part of Macronix's corporate value.

4.4.1. Sharing Beneficial Outcomes with Customers

Macronix is committed to being an integrated solutions provider; this is not only a long-term promise that we have made to our corporate partners but also our ultimate goal. In the IoT era, application-oriented devices will replace standardized products of the information era. As the leading memory supplier, Macronix is capable of delivering custom-made comprehensive solutions for countless electronic product applications. Macronix has transformed from an integrated service provider that offers comprehensive services ranging from R&D, design, manufacture, and production to assembly and testing, into an innovative solution

partner for customers. We actively participate in the reference designs of major IC design companies, as well as the development projects of our system customers, providing not only innovative R&D concepts and advanced process technologies, but also creative ideas to help our customers develop marketable products.

After more than three decades of painstaking efforts, we have successfully established long-term, mutually beneficial strategic partnerships with large, world-class manufacturers in the U.S., Japan, Europe, and Asia. Our favorable long-term relationship with these powerful partners has enabled us to become a world-class manufacturer of NOR Flash memory and ROM products.

Macronix not only leverages its world-class R&D and manufacturing capabilities to offer customers high-quality, innovative, and performance-driven products, but also emphasizes the management of information security. The purpose of information security management is to protect the company's information assets from internal and external threats and damages, whether these may be intentional or accidental. The goal is to implement and maintain the company's information security management system, lower the occurrence of information security incidents, and manage risks caused by incidents so they only occur within an acceptable range, ensuring that the company is able to continue normal operations. The information security policy must achieve the following:

- (1) Ensure the availability and integrity of information to protect the Company's and users' rights and interests.
- (2) Ensure the confidentiality of information to protect the Company's and users' data and privacy.
- (3) Ensure the accuracy of information to improve service quality.
- (4) Compliance with requirements of the competent authority and laws.

With regard to execution, Macronix has formulated Guidelines for Macronix Information Management that specifies procedures and regulations for managing confidential data. We regularly educate and train our employees regarding the protection of confidential data and require all employees to pass an information security test every year. All customer-related documents, data, and business-related information are strictly controlled by internal systems. Macronix did not receive any complaints regarding the infringement of customer privacy in 2020. In the future, Macronix will continue to accumulate its intellectual property, provide better products and services, and cooperate with its customers in order to face challenges pertaining to advanced technologies and collectively share its positive outcomes.

Honesty is Macronix's business philosophy. Customer satisfaction surveys are conducted to determine if the Company values of “innovation, quality, efficiency, and service” are implemented, and to achieve the goal which is mutually beneficial for the Company and customers. Annual customer satisfaction surveys are conducted by Macronix's headquarters in Taiwan. Questionnaire survey results are summarized and analyzed for the management team to truly understand the degree of customer satisfaction. To further understand customers' needs and their degree of satisfaction, we have instituted satisfaction evaluation mechanisms for the areas of greater concern: sales services, order shipments, product quality, product technology, customer application services, green product regulation, and overall performance, as well as surveys conducted through questionnaires or telephone interviews. Survey results serve as an important basis for Macronix to review our service quality and improve our operation flow, which will subsequently allow us to optimize our services and thus enhance our relationships with customers. The customer satisfaction survey was conducted in 2020, with a response rate of 77%, which was higher than 75% rate in the previous survey. According to the results, customers gave positive and satisfied ratings on all of our 7 indicators (the maximum score is 5; 4 or above means "Satisfied").

4.4.2. Growing Together with Our Suppliers

Macronix uses CSR as a criterion for evaluating and selecting suppliers. We have further intensified CSR programs in our supply chain to confirm that supply chain partners are in compliance with CSR and are willing to accept ethical standards through signing Code of Conducts Compliance Certificate. We also attach great importance to labor occupational safety and health. We look forward to implementing CSR related work and growing together.

Macronix was one of the first companies in the Hsinchu Science Park to complete greenhouse gas emissions verification, and among the first semiconductor providers to receive AEO certification from the Directorate General of Customs Administration under the Ministry of Finance. We also actively pushed upstream and downstream supply chain partners to comply with the “Responsible Business Alliance® Code of Conduct” and instituted "Supplier Green Product and SER Audit" mechanisms. By conducting annual audits on our supply chain partners, we have expanded our CSR to the safety supply chain system level, taking action to implement supplier environmental and social assessments.

We extended the requirements of our CSR policy (e.g. no child labor, the granting of freedom of assembly and association, and no forced labor) to our supplier selection

policies (including security guards, janitors, cleaner and human outsourcers etc.) and incorporated these principles in our employee training courses and promotional materials. In 2020, 40 suppliers passed our RAS audit. For those suppliers who failed the audits, we offered our assistance so that 100% of our suppliers ultimately complied with our requirements.



Propagating Macronix's CSR policy and supplier agenda during the 2020 suppliers' meeting
(Meetings were changed into an online format due to the pandemic)

5. Economic Dimension

5.1 Financial Performance

Management approach	Importance	Evaluate market demand and industry trends to create stable economic benefits, achieve continuous growth, and increase company value.
	Goals	Short-term: Evaluate the market situation and immediately make adjustments Mid-term: Increase operating profits and create company value Long-term: Maintain leadership and ensure sustainable development
	Management measures	Set clear goals, review production, management, sales, and R&D expenses, periodically convene meetings for review, and continuously make improvements.
	2020 Implementation Results	Please see the next page for our business performance

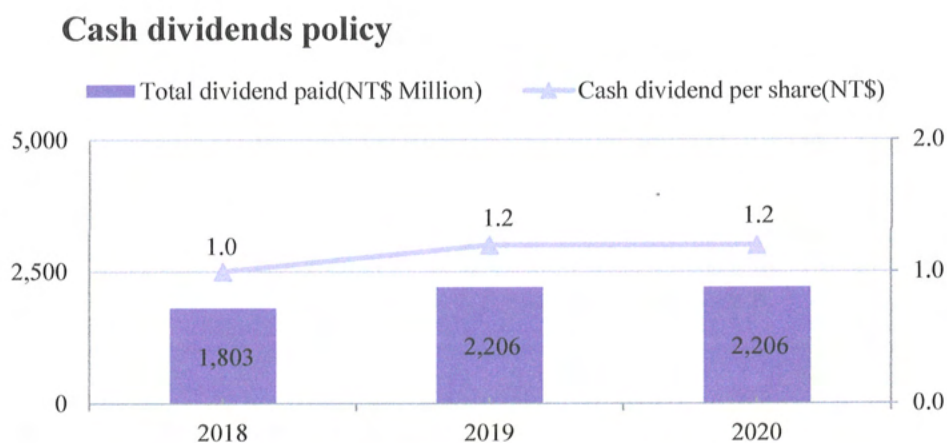
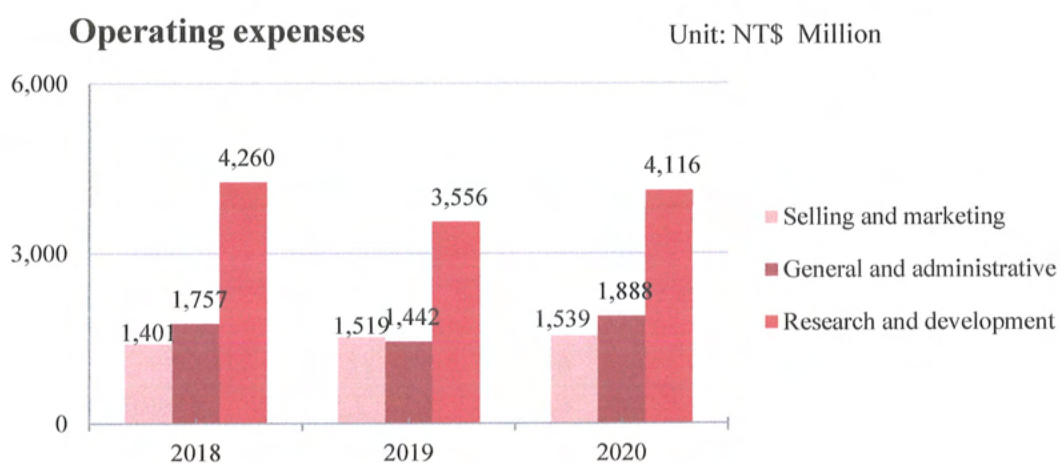
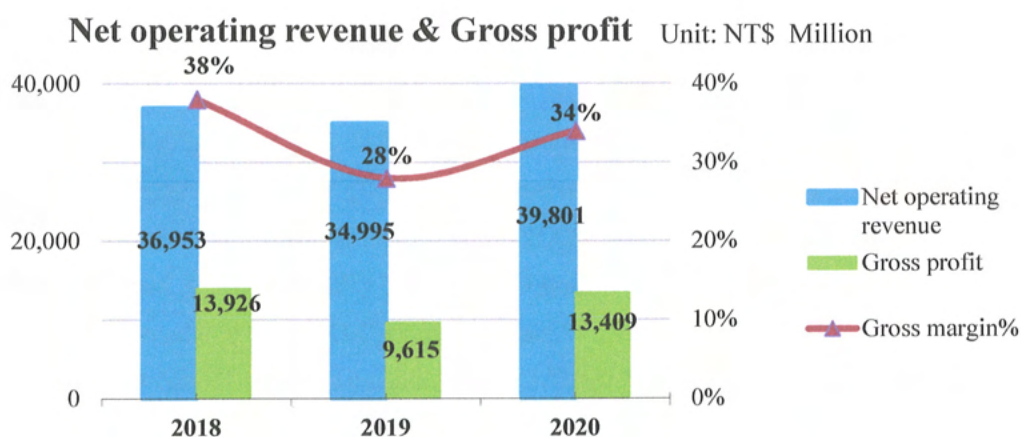
Macronix established its headquarters in the Hsinchu Science Park on December 9, 1989, and commenced operations in December of that year. The main business activities of Macronix include the design, manufacturing, and marketing of integrated circuits and memory wafers, the commissioned design of related products, development, and consultation, as well as engagement in business-related import/export trading. Macronix was listed on the Taiwan Stock Exchange on March 15, 1995. As of Tuesday, December 31, 2020, our paid-in capital is approximately NT\$18.6 billion.

For details on our subsidiaries, shareholding ratio, and business items, please refer to Appendix 45 or subsidiaries that were included in the 2020 Q4 consolidated financial report. As of December 31, 2020, subsidiaries that are directly or indirectly owned by the Company include Run Hong Investment, Ltd. ("Run Hong"), Hui Ying Investment, Ltd. ("Hui Ying"), Mxtran Inc. ("Mxtran "), Macronix America Inc. ("MXA"), Macronix (BVI) Co., Ltd. ("MXBVI"), Mxtran Holding (Samoa) Co., Ltd. ("Mxtran Samoa"), Mxtran (H.K.) Holding Co., Limited ("Mxtran HK"), New Trend Technology Inc. ("NTTI"), Macronix (Asia) Limited ("MX Asia"), Macronix Pte. Ltd. ("MPL "), Macronix Europe NV. ("MXE"), Macronix (Hong Kong) Co., Ltd. ("MXHK"), and Macronix Microelectronics (Suzhou) Co., Ltd. ("MXm"). The subsidiaries listed in the preceding paragraph are not included within the scope of this report.

2018~2020 Business Performance (Consolidated financial statement figures)

Unit: NT\$1 Million

Item	2018	2019	2020 年	Comments
Net operating revenue	36,953	34,995	39,801	Direct economic value
Operating costs	23,027	25,380	26,392	Distribution of economic value
Gross profit	13,926	9,615	13,409	
Operating expenses	7,417	6,517	7,543	Distribution of economic value
Income from operations	6,509	3,099	5,866	
Total non-operating income and expenses	2,755	(73)	(25)	Distribution of economic value
Income before income tax from continuing operations	9,264	3,026	5,841	
Income tax expense	272	13	515	Distribution of economic value
Net income for the year	8,993	3,013	5,326	Economic value retained



*

Stock dividends of NT\$0.2 per share were distributed in 2018

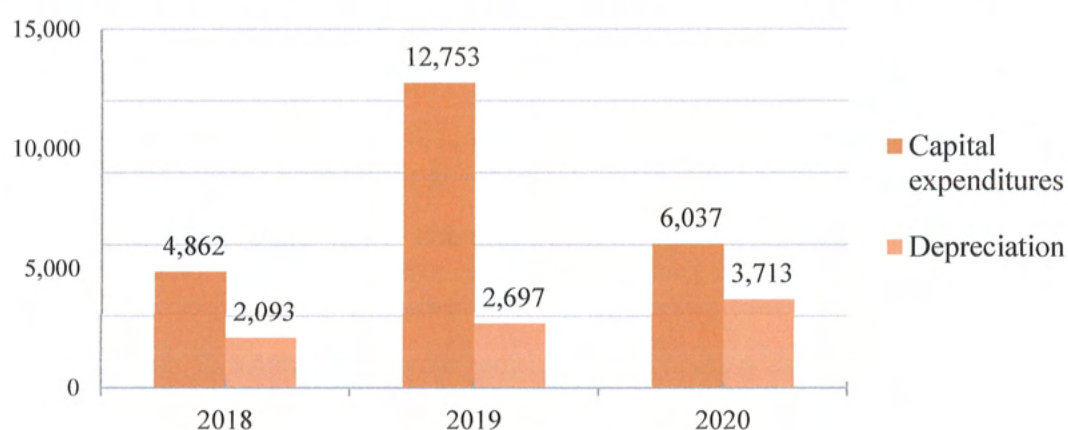
R&D Investments

Unit: NT\$ Million

Item	2018	2019	2020
Fixed R&D investment	4,260	3,556	4,116
Total revenue	36,953	34,995	39,801
Percentage	11%	10%	10%

Capital expenditures & Depreciation

Unit:NT\$ Million



Employee benefit expenses in 2020 include salaries, labor and health insurance premiums, director's remuneration, pensions, and other employee benefit information. Please refer to page 81 of the 2020 Q4 IFRSs stand-alone financial statements (summary of employee benefits, depreciation, and amortization expenses)

Financial Assistance Received from the Government

There were no government subsidies and items in 2020.

5.2 Tax Policy

Macronix seeks to improve tax risks management, and is committed to ensuring information transparency and regulatory compliance. We also support government tax policies to drive economic development and sustainability.

◆ Macronix's six guidelines for tax management

1. All operations comply with applicable tax laws and regulations.
2. Transactions between affiliated enterprises comply with the internationally accepted pricing principles announced by the Organization for Economic Co-operation and Development (OECD) and related regulations of Base Erosion and Profit Shifting (BEPS), so that the pricing policy of related parties complies with the arm's length principle.
3. In response to the global trend of anti-tax evasion, avoid taking advantage of countries with low tax rates in tax planning with the purpose of tax evasion.
4. Make information in tax reports transparent and submit the Country-by-Country Report, Master File, and Transfer Pricing Report to the tax authority to ensure tax disclosure is conducted in compliance with regulations and guidelines.
5. The Company's tax planning and decisions all take the effect of tax risks into consideration.
6. Build a good relationship with the tax authority based on the principles of mutual trust and information transparency.

◆ Macronix effective tax rate

Macronix's effective tax rate was 8.34% in 2020, lower than the statutory tax rate, 20%, of the R.O.C. Profit-Seeking Enterprise Income Tax. This is because the deduction of operating loss carryforwards in the previous year is applicable to Macronix and tax credit for research and development expenditure.

6. Sustainable Environmental Dimension

Macronix's ESH Policy	
◆	<u>Rights and Obligations:</u> Commits and guarantees all employees can work in a comfortable, safe and healthy environment, and provides employees and their represents ample ESH consultation and participation, so as to make the best efforts fulfilling their duties and obligations regarding ESH.
◆	<u>Regulation Compliance:</u> Abide by ESH regulations and thoroughly do real ESH practices.
◆	<u>Hazard Prevention:</u> Prevent pollution and potential damages by hazard identification, risk assessment, environmental impact analysis and hazardous sources control. Also, implement energy conservation, carbon reduction, greenhouse gas reduction, water conservation and waste reduction, etc.
◆	<u>Education and Training:</u> Provide employees with competitive and comprehensive ESH training programs for assuring them being able to implement the ESH works appropriately.
◆	<u>Sustainable Development:</u> Meet international Green Product requirements and implement environmental related substances management system. Ensure the sustainable development of Macronix's business operation and ESH works by effectively utilizing corporate resources to establish and continuously enhance the ESH management system to meet interested parties.

6.1 Environmental Protection Management and Pollution Prevention

Macronix has always embraced the principle of sustainable management. We see a sustainable environment as the foundation of our corporate culture, and we seek to protect the planet through concrete actions. Each year, we continue to reduce our energy consumption and carbon emissions, purchase "Green Mark" products, increase resource efficiency, and design green products. We actively promote energy and water conservation, waste reduction, process improvement, pollution control, green offices, resource recycling and reuse, ecological conservation, and educational training. We have adopted a proactive attitude toward complying with regulations and international standards to set up pollution prevention facilities, such as wastewater treatment facilities, scrubbers, waste storage areas, toxic gas detectors, and soundproof walls, to

prevent various types of pollution, including wastewater, air pollution, industrial waste, toxic chemical substances, and noise. Nevertheless, we go to great lengths each year to minimize the impact of our operations on the environment and enhance our corporate competitiveness by raising our quality control criteria. Macronix did not receive any severe penalties in 2020 under our strict environmental quality monitoring.

- ◆ Major awards received by Macronix during 2020 in recognition of our achievements in the environmental category include: Hsinchu City private manufacturer and group that performed exceptionally well in green procurement/Hsinchu City Government
- ◆ Science Park Green and Beautiful Environment Maintenance Contest/ Science Park Bureau: Award of Distinction (Award winning fabs: Headquarters)
- ◆ Science Park Green and Beautiful Environment Maintenance Contest/ Science Park Bureau: Excellence Award (Award winning fabs: Fab 1, Fab 5, Testing Plant)



Award of Distinction/Excellence Award for
Greening/Beautification and Environmental
Maintenance

We introduced and passed the ISO 14001 Environmental Management System Certification in 1997. We ensure that our environmental management systems fully comply with the Plan-Do-Check-Act (PDCA) operations of the ISO system to maintain a healthy and safe environment and continuously make improvements to reach our goal. Currently, 100% of Macronix's facilities have passed the Environmental Management System (ISO 14001:2015) Certification.

To ensure that a smooth communication channel is provided that conveys

environmental or other issues to both Macronix stakeholders and internal employees, we have set up contact windows for the government, general public, customers, investors, employees, the media, and suppliers to handle and respond to the precious feedback that is provided externally or internally. In 2020, Macronix did not receive any environment-related complaints according to case statistics related to environmental complaints.

Every month, Macronix monitors the use of materials based on the permits issued by the Environmental Protection Agency to ensure that the use of materials is within the maximum approved amount. Our engineering department often checks whether an opportunity is available to reduce the use of materials based on process requirements. As a semiconductor manufacturer, Macronix uses wafers the most. Due to the high purity of silicon wafers used in the semiconductor industry, there is currently no proper way to recycle and reuse wafers. Therefore, we do not use recycled materials. The consumption of wafers and packaging materials is as follows:

Materials	Amount Consumed in 2020 (Ton)
Renewable Materials (Packaging Materials)	373.69
Non-renewable Materials (Wafer)	66.83
Total Amount of Materials Consumed	440.52

6.1.1. Water Resource Management

Management approach	Importance	Reduce environmental load and impact via water quality control and reuse
	Medium and long-term development direction	Actively develop wastewater recycling technology to increase the efficiency of water resource use
	Management method	External: Hsinchu Science Park Bureau water use plan review, wastewater (sewage) testing report Internal: ISO14001 Manual/Procedure/Specifications/Records
	Measures	1. Water volume statistics are compiled and the water balance chart is reported on a monthly basis 2. Periodically monitor effluent water quality and outsource semi-annual effluent testing
	2020 implementation results	Average water recycling rate of all fabs in the Company was 84.0%
	Targets in 2021	Maintain the water recycling rate of all fabs in the Company $\geq 84\%$

* Note: Process water recycling rate is calculated using the formula specified by Hsinchu Science Park Bureau.

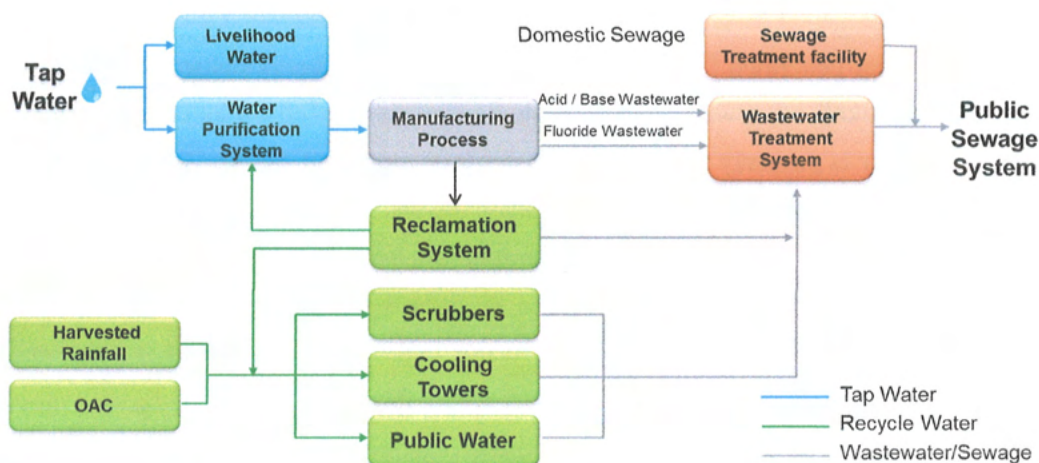
The main source of water for Macronix's plants is running water supplied by Taiwan Water Corporation from Baoshan Reservoir and Yongheshan Reservoir. Hence, water use does not have any material effect on the water source. All of our plants have water storage facilities in coordination with the regulations of the Water Resources Agency, Ministry of Economic Affairs, which are for domestic and firefighting use. The water storage facilities that were planned have all reached safe storage capacity. Since fabricating semiconductors requires a large amount of ultrapure water, Macronix sets up an annual target for water consumption and reviews the water pressure condition to avoid wasting water resources. Moreover, water consumption is reviewed every quarter to ensure that risks remain under control. Macronix's total running water usage in 2020 amounted to 2,915 million liters, with 713 million liters in total water consumption and 2,202 million liters in total water discharge. Recycling discharged water has always been an issue of concern for Macronix. In addition to submitting water consumption data and water balance charts to the Hsinchu Science Park Bureau on a monthly basis, our internal units also monitor the process water recycling rate on a daily basis through

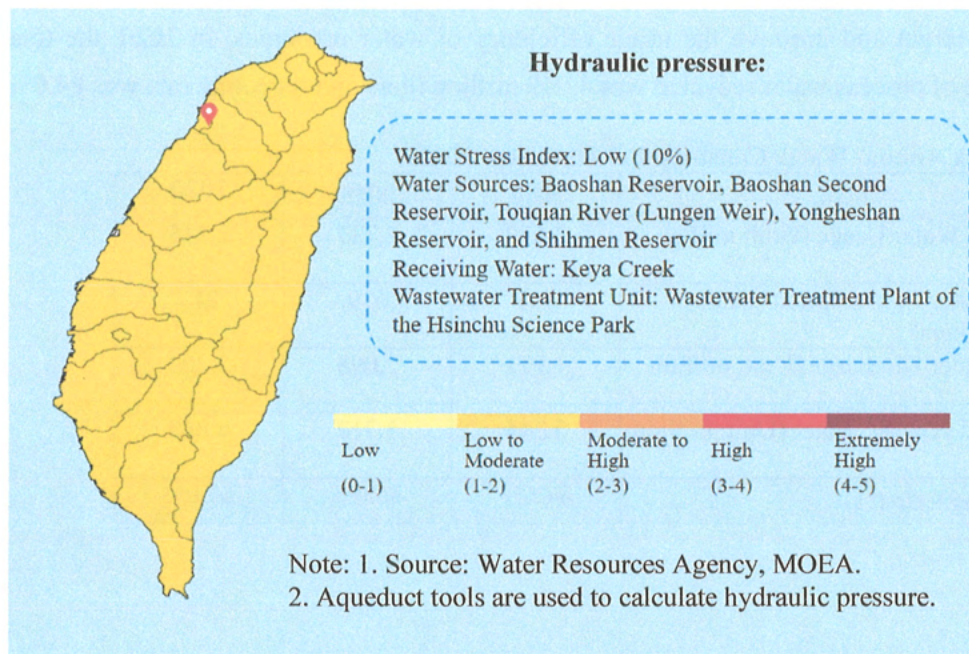
wastewater recycling technology and the SCADA system in order to meet our water-saving target and improve the usage efficiency of water resources. In 2020, the total volume of process water recycled was 4,049 million liters and recycling rate was 84.0%.

Macronix Annual Water Consumption Statistical Table

Item	2018	2019	2020
Running Water Usage (Unit: million liters)	2,570	2,737	2,915
Total Water Consumption (Unit: million liters)	599	639	713
Total Water Discharge (Unit: million liters)	1,971	2,098	2,202
Recycled Process Water (Unit: million liters)	3,745	3,712	4,049
Recycling Rate (%)	84.6%	85.0%	84.0%

Illustration of Macronix's Water Recycling





Wastewater generated from the fabrication of semiconductors is roughly divided into acid and alkali wastewater and fluoride wastewater, based on its characteristics. Our wastewater is properly treated in a wastewater treatment facility, and pH, BOD, COD, SS, and NH₃ are regularly tested based on the water quality standards of Hsinchu Science Park to bring it into the allowable limit before being discharged into the sewage system. The sewage system is connected to the park's wastewater treatment facility, where the wastewater is treated to higher water quality standards than the national effluent standard, and then discharged into Keya River through a dedicated pipe. Therefore, there is no significant impact on the ecological environment. Other water resource management measures include:

- ◆ Regularly tracking and managing the usage data of water resources
- ◆ Conducting risk assessment and management
- ◆ Determining if our fabrication facility is located in an area with water shortages
- ◆ Helping promote water resource utilization programs
- ◆ Entrusting certified organizations to sample and analyze the quality of discharged water twice a year
- ◆ Carrying out real-time monitoring of pH/fluoride concentrations of effluents and the pH of runoff wastewater

- ◆ Confirming water quality by testing and sampling water in cooperation with Hsinchu Science Park Bureau
- ◆ Having environmental inspectors routinely examine the conditions of wastewater treatment and report the results in a timely manner to confirm that discharged wastewater meets regulatory standards
- ◆ Setting up a rainwater harvesting tank at headquarters to harvest rainwater, storing in the water tower and using it to water plants and flush toilets

In response to the ammonia reduction plan set up by the Hsinchu Science Park Bureau, Macronix has taken proactive measures to reduce the concentration of ammonia in effluents. For example, in 2015, our Fab 2 and Fab 5 plants began implementing measures, including reduction of materials, wastewater diversion, and improvements in the treatment system, such as setting up A/O-MBR.

Quality of discharged water in 2020

Plant	pH	BOD (mg/L)	COD (mg/L)	SS (mg/L)	NH ₃ (mg/L)
FAB1	7	4.9	30.55	3.35	14.04
FAB2	6.55	NA	47.85	22.45	20.05
FAB5	7.0	18.4	89.6	26.3	21.85
BE	8.4	80.9	203	132	-
Allowable limit	5-9	300	500	300	50

Notes: Water quality data obtained from the data reported in the "Application Form for Channeling Business Wastewater (Sewage) into Dedicated Sewage Systems"

6.1.2. Air Pollution Prevention

Management approach	Importance	Air pollutant emissions are reduced through treatment equipment, air pollutants are tested in accordance with the law, and improvement measures are implemented to reduce the pollution generated by production activities.
	Medium and Long-term Development Direction	Reinforce the backup system to ensure preventive facilities are operating normally and improving handling efficiency
	Management Method	External: Submit volatile organic compounds and inorganic acid pollution prevention records, and report costs incurred in preventing fixed sources of air pollution Internal: ISO14001 Manual/Procedure/Specifications/Records
	Measures	1. Compile statistics of air pollutant emissions on a quarterly basis 2. Evaluate the feasibility of reduction measures on an annual basis
	2020 Implementation Results	The company's volatile organic compounds (VOCs) were reduced by 96.2%

All waste gases generated from manufacturing processes at Macronix are collected and classified via the gas collector and subsequently treated before being discharged; this process conforms to the government's regulations for environmental protection. The central gas emission treatment system at Macronix consists of three main systems, one each for general emissions, acid/alkaline gas emissions, and volatile organic compounds (VOCs). Waste gases are treated in professionally designed facilities, and emissions are released in accordance with statutory regulations. We entrust certified organizations to test our waste gas emissions every year. Macronix facilities have had continuous monitoring devices installed to measure VOCs; the emissions removal rate is as high as 90%, and the emissions are less than 0.6 kg/hour from each fab; average VOCs removal rate reached 96.2% in 2020.

2020 Waste Gases Emission Data

Plant	VOCs (kg/year)	NOx (kg/year)	SOx (kg/year)
FAB1	3,481.03	1,210.53	83.89
FAB2	6,447.85	1,853	203.22
FAB5	4,151.1	2,375.62	104.52

Notes: Emission data obtained from reports concerning the costs of preventing fixed sources of air pollution.

Macronix manages the emission of waste gases generated from various modes of transportation, namely shuttle buses for employees, corporate vehicles, and wafer transport vehicles:

- ◆ Employee shuttle bus to/from work: Vehicle sources include car rentals, which are managed by requesting the party to sign an agreement form for the self-management of diesel cars (including maintenance plans, type of gasoline used, emission tests, etc.), and all signed documents are kept.
- ◆ Corporate vehicle/wafer transport vehicle: The car rental companies are responsible for other items related to rental car's maintenance and regular exhaust inspections.

Our factories are located within the Hsinchu Science Park; we are fully willing to cooperate with all matters required by the Science Park. Macronix's headquarters and Fab 5 are surrounded by factories, and nearby neighborhoods are concerned about odors. Technically speaking, waste gases emitted from the Company's various fabrication plants do not produce abnormal odors because they are treated before being released.

6.1.3. Waste Management

Management approach	Importance	Reduce the environmental load of production by promoting waste reduction and strengthening waste recycling/reuse
	Medium and Long-term Development Direction	Waste reduction by classifying the source of waste and developing recycling and reuse technologies
	Management Method	External: Business waste reporting and management information system Internal: ISO14001 Manual/Procedure/Specifications/Records
	Measures	1. Compile statistics of waste storage, generation, and clearance on a monthly basis 2. Perform internal inspections and audits on a quarterly basis 3. Audit waste disposal companies on an annual basis
	2020 Implementation Results	1. Establish a real-time tracking system using the GPS on vehicles of waste disposal companies 2. Company-wide waste recycling and reuse rate reached 96.6%; burying rate was 0.2%.
	2021 Targets	Company-wide waste recycling rate $\geq 92\%$ Note

Note: Recycling/reuse and composting waste are recycling technologies with environmental protection and economic benefits. Hence, these two indicators are used to evaluate and present the complete picture of our recycling/reuse results.

Macronix has completed the adoption of alternative materials and the improvement in fabrication processes regarding hazardous substances used in electronics that are of concern to the international community and specified in the EU RoHS (Restriction of Hazardous Substances). We received the IECQ QC 080000 Hazardous Substances Process Management System Certification in November 2007, which confirmed that our products compliant with RoHS and customer requirements. Thanks to our thorough hazardous substance management system, we have been awarded green product certifications from many internationally renowned customers.

Our main consideration regarding waste management strategies is to recycle and reuse. Our waste production is categorized into general waste and hazardous waste, both of which are consigned to eligible vendors for subsequent waste treatment. Prior to waste disposal, we confirm how the commissioned contractors process the waste and require them to

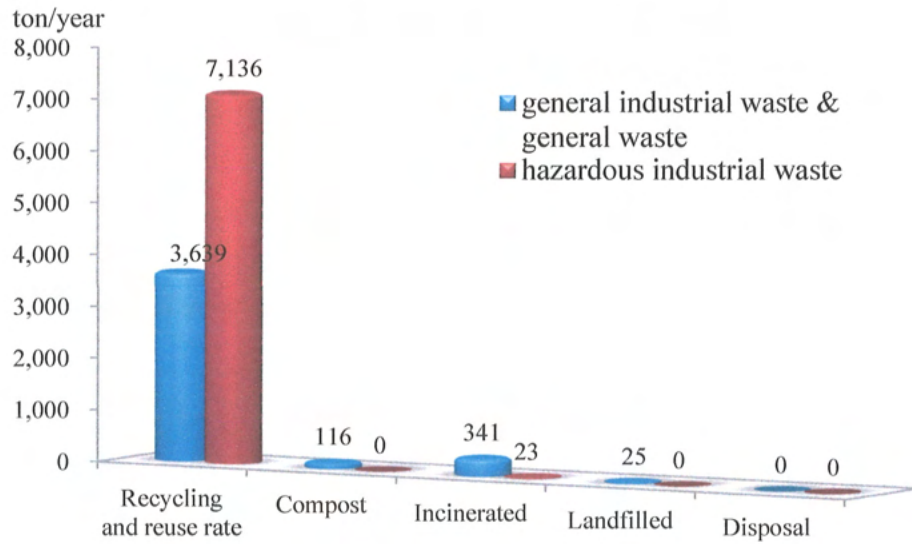
undergo relevant review procedures before commissioning them to treat our waste. In 2020, Macronix conducted 37 audits for new contractors amid selection process and existing waste treatment operators. With an increasing emphasis on waste disposal by the existing government agency, the Company will request permits and record the product and sales flow when auditing waste treatment operators. Furthermore, we encouraged waste disposal companies to establish a real-time tracking system with GPS in 2017 for waste disposal management. In 2020, 11 companies completed system installation on 50 vehicles. This allows us to track the route of waste disposal vehicles, abnormal stops, and prevent violations of the law. Furthermore, no incidents of severe leakage were reported in 2020.

Approximately 11,279 metric tons of waste were generated in 2020. Of the total, 10,891 metric tons of waste were recycled or reused, representing a recycling/reuse rate of 96.6%, which is the highest among all methods for handling waste. Only 25 metric tons or 0.2% of waste were buried, which would otherwise create a greater environmental load. This shows that we prioritize environmentally friendly waste disposal methods. Furthermore, we generated a total of 7,159 metric tons of hazardous waste, and none of the waste was processed overseas.

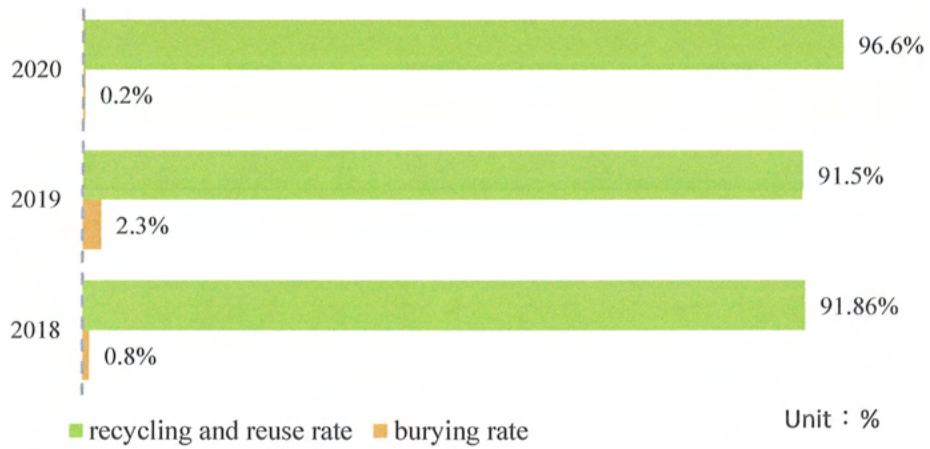
To effectively control waste generated by the Company and the recycling rate, Macronix has set up annual targets and reviews them every quarter to ensure that the operations comply with the given targets. The Company reduces waste by cutting down the consumption of materials through the joint efforts of engineering departments based on a feasible reduction plan.

Item	2018	2019	2020
Total Recycled/Reused Amount (metric tons)	8,198	8,601	10,891
Non-Recyclable Amount (metric tons)	726	800	388
Hazardous Industrial Waste (metric tons)	6,043	5,718	7,159
Total Amount of Waste (metric tons)	8,924	9,401	11,279
Recycling/Reuse Rate (%)	91.86	91.5	96.6

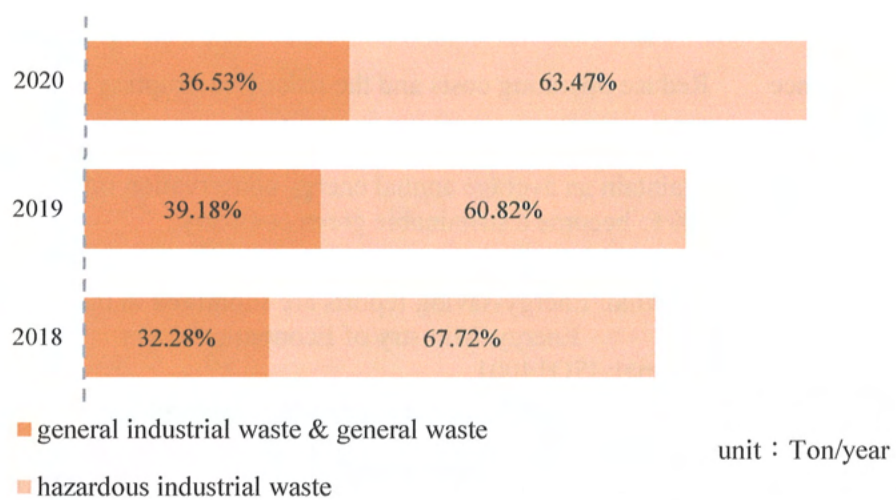
Waste Produced by Macronix in 2020



Percentage of Industrial Waste Recycled/Buried



Total Waste Generated

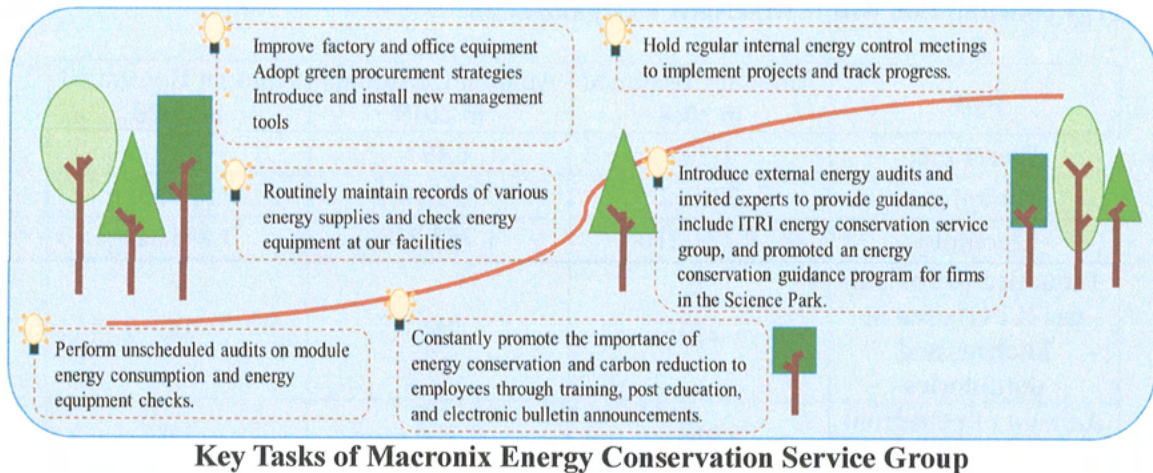


6.2 Energy and Climate Change Management

6.2.1. Energy Management

Management approach	Importance	Reduce operating costs and the risk of interrupting production
	Medium and Long-term Development Direction	Maintain an average annual energy conservation rate higher than 1% to become a sustainable green company
	Management Method	External: Energy-saving reports are submitted to the Bureau of Energy, Ministry of Economic Affairs Internal: ISO14001 Manual/Procedure/Specifications/Records and energy-saving projects.
	Measures	1. Compile power consumption statistics on a quarterly basis 2. Evaluate the feasibility of energy conservation measures on an annual basis 3. Track the progress of the annual plan based on ESH's goals and targets
	2020 Implementation Results	Company-wide average annual energy conservation rate of 1.4%
	Targets in 2021	Company-wide annual energy conservation rate higher than 1%

Macronix is dedicated to reducing energy use and consumption every year. We follow the instructions provided by the Bureau of Energy, Ministry of Economic Affairs each year to report our energy conservation audit system for energy users, as well as our energy use from the previous year. Furthermore, we officially formed the Macronix "Energy Conservation Service Group" in 2008 to carry out various energy conservation activities, implementing energy management in various aspects. Over the years, work activities in this domain have been as follows:



In 2020, the total energy consumption reached 1,979,244 GJ, in which the power consumption from the grid hit 1,896,325 GJ, accounting for 100% of the total power consumption; renewable energy had not been utilized yet. In response to newly added obligations for “Power Users Above a Certain Contract Capacity” under the Renewable Energy Development Act, Macronix soon established a renewable energy task force in 2019. The task force evaluated each project regarding its renewable energy obligations and its feasibility based on the condition of the company's power consumption, and in 2020 reported those feasible projects to senior management level in order to comply with the national policies and regulations.

Energy consumption within Macronix's Organization

Item	Amount Consumed in 2018	Amount Consumed in 2019	Amount Consumed in 2020
Diesel fuel	1,311	1,491	434
Natural gas	70,652	75,010	81,986
Electricity	1,774,210	1,787,738	1,896,325
Liquefied petroleum gas (LPG) used in kitchens and dormitories	253	265	253
Amount of petroleum used	284	286	248
Total energy consumption (GJ)	1,846,710	1,864,811	1,979,244
Total rRevenue (NT\$1 million)	36,953	34,995	39,801
Energy iIntensity (GJ/NT\$1 million)	50	53	50

Notes: (1) Energy consumption unit: GJ, (2) Data obtained from GHG inventory data, including the power consumption of subsidiaries' offices in the company headquarters. (3) The heating values used for calculations are based on the GHG emission factor management form.

Macronix has implemented various energy-saving projects over the past few years, including projects focusing on the chiller system, power system, and illumination equipment, all of which achieved significant results. The main energy conservation strategy in 2020 was to improve air conditioning systems and optimize equipment operating conditions. A total of 28 energy conservation projects were implemented and total power consumption was reduced by 7,431,757.23 kWh (26,754 GJ) in 2020, which is the equivalent of reducing CO₂ emissions by 3,783 metric tons.

Macronix's Energy Conservation Measures in 2020

Energy Conservation Items	Number of kWh conserved (kWh/year)	Carbon Reduction (tonCO ₂ e)	Energy conservation contribution ratio (%)
Air conditioner energy conservation (5 items)	928,296	473	12.49
Equipment operating optimizing (7 items)	3,203,158	1,630	43.10
Use of high-efficiency motors and optimization of motor operation.(2 items)	522,092	266	7.03
Chiller energy conservation (4 items)	1,391,648	708	18.73
Energy saving optimization of cooling towers and replacement of fins (4 items)	1,261,658	642	16.98
Lighting energy conservation (6 items)	124,906	64	1.68
Total	7,431,757	3,783	100

Notes:

1. Data obtained from the energy reports; the type of energy conserved in each item is electricity.
2. The amount of energy conserved is compared against the amount of energy consumed before improvements were made
3. Energy conservation contribution ratio = Number of kWh conserved for each item / Total number of kWh conserved

6.2.2. Climate Change Management

Management approach	Importance	Risks that may result from failure to effectively manage greenhouse gas (hereinafter referred to as “GHG”) emissions include: stricter regulations, increasing carbon fee, and climate-related physical risks (e.g., water shortage and plant and equipment damages caused by typhoons)
	Short-term Development Direction	1. Conduct inventory of the amount of Scope 3 emissions and evaluate the amount of value chain emissions 2. Continue to encourage energy conservation and carbon reduction, and seek possible solutions
	Medium and Long-term Development Direction	1. Continue to implement the process fluorinated gas reduction plan 2. Minimize energy loss within the Company and reduce GHG emissions 3. Produce or purchase renewable energy and certificates
	Management Method	External: Requirements of Taiwan's Greenhouse Gas Reduction and Management Act Internal: Internal management regulations, ISO 14064-1, ISO 14064-2
	Measures	1. Compile the GHG inventory every year 2. Control PFC emissions on a monthly basis and review emissions on a quarterly basis 3. Evaluate the feasibility of carbon reduction measures 4. Evaluate the participation in EPA projects to gain carbon quota 5. Evaluate the feasibility of purchasing or producing renewable energy.
	2020 Implementation Results	GHG emissions in 2020 decreased by 10% as compared with the base year
	Targets in 2021	Maintain annual reduction $\geq 1\%$

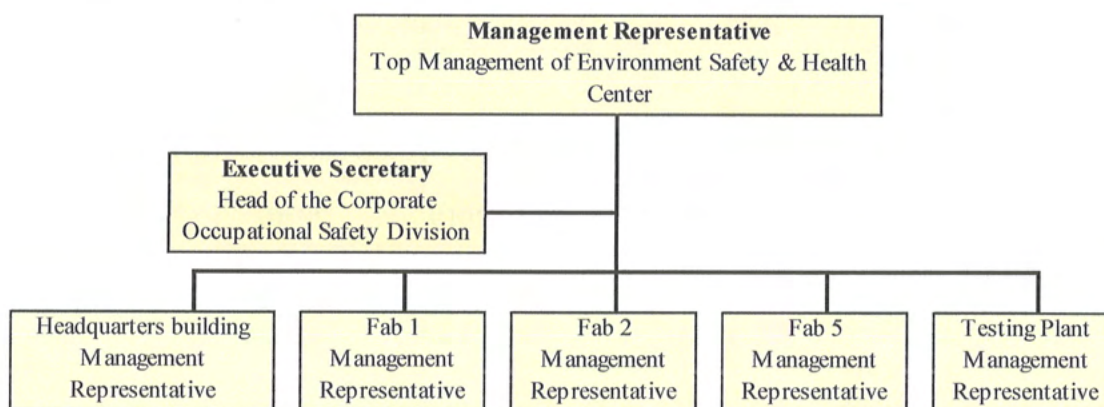
In response to the trend of GHG reductions control and reduction in the supply chain due to global warming, Macronix began planning for GHG emissions inventory, control, and reduction in 2000 and obtained the 2005 ISO14064-1 GHG emissions verification statement in 2007.

We established the units to manage GHG according to ISO 14064-1 verification standards, as illustrated below. Through the complete management system, we performed thorough checks on the energy use conditions in our facilities and offices, and thereby established inventory records and internal procedures for GHG inventories. Therefore, we are able to use the information as a basis for selecting alternative production technologies

with reduced energy consumption and GHG emissions in order to achieve our goal in this respect. Ozone-depleting substances (ODS) controlled by the Montreal Protocol are identified during the GHG inventory, but are not included in emissions according to regulations of the EPA.

Besides directing our efforts to energy conservation and carbon reduction in processes and equipment, we are also actively participating in government guidance projects in response to global climate change and carbon reduction trends, in hopes of contributing to the mitigation of global warming. In 2018, we participated in the Low Carbon Technology Industrial Application Subsidy Project of the Industrial Development Bureau, Ministry of Economic Affairs (IDB), and completed the newly added local scrubbers with Fab 5 process equipment project proposal. We also applied to the EPA for the registration of our GHG offset project in 2019. The project passed the EPA's review at the end of 2020. Moreover, we plan to formulate a monitoring plan and emission quota review mechanism in 2021, which are expected to help reduce over 10 thousand tons of CO₂ emissions every year.

Macronix Greenhouse Gases Management Organization Chart



According to regulations of the EPA, the GWP value of the GHG inventory was changed in 2016 to the Fourth Assessment Report released in 2007 by IPCC. As a result, the Company adjusted the base year to 2011 and has made relevant changes to the table and chart of GHG emissions in this report. In accordance with the operation control method, Macronix calculated the 7 kinds of GHGs including CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, and NF₃. Macronix's total emissions in 2020 were 442,983.155 tonCO₂e. The proportions of emissions are as follows: Macronix's Scope 1 emissions accounted for 39.5% and Scope 2 emissions accounted for 60.5% of the Company's total emissions. We

began to compile the data of indirect GHG emissions in addition to imported energy at the end of 2019 to provide a more complete GHG inventory and monitor GHG emissions of our value chains. The first verification in accordance with ISO 14064-1:2018 was conducted in 2021. The total indirect GHG emissions excluding imported energy reached 181,011.1130 tonCO₂e in 2020 (as the base year of Scope 3). Most indirect GHG emissions were generated from the products (including purchased goods and services) used by the organization.

Macronix GHG Emissions

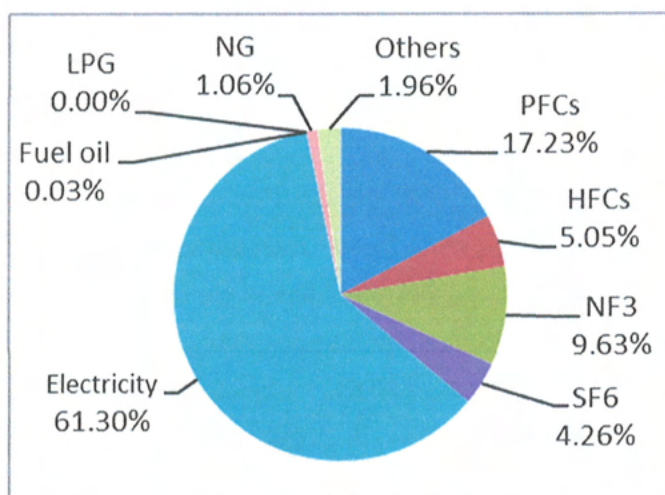
(Unit: 1,000 tonCO₂e/year)

Scope	2018		2019		2020	
	Carbon emissions	Percentage	Carbon emissions	Percentage	Carbon emissions	Percentage
Scope 1						
Direct emissions	173	38.8%	157	37.2%	175	39.5%
Scope 2						
Indirect emissions	273	61.2%	265	62.8%	268	60.5%
Total	446	100%	422	100%	443	100%

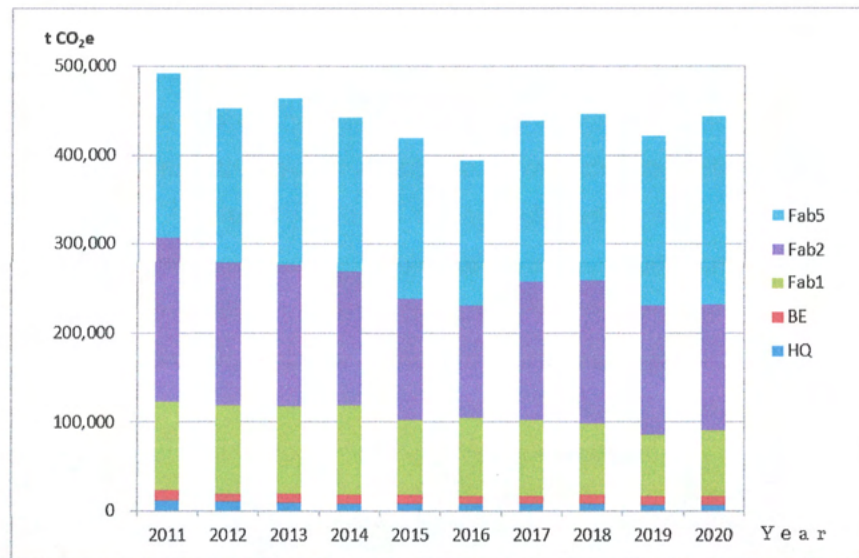
PFC Emission Amount Over the Years

(Unit: tonCO₂e/year)

Year	2018	2019	2020
Total	76,746	70,944	76,343



Ratios of GHG Emissions by Source of Emission, 2020



Trend Diagram of GHG Emissions

Carbon Emission Intensity

Item	Calculation Unit	2018	2019	2020
Carbon Emission Intensity	tonCO ₂ e/ NT\$1 million revenue	12.0	12.1	11.1
Carbon Emissions (Scope 1 & 2)	1,000 tonCO ₂ e	446	422	443
Total Revenue	NT\$1 million	36,953	34,995	39,801

6.3 Ecological Environment and Conservation

In order to implement ecosystem conservation concepts, Macronix has adopted six hectares of land from the Science Park Administration Bureau and turned 90 types of plants into the Macronix Park with thousands of trees and including banyan trees, camphor trees, red cedar trees, Madagascar almonds, bamboos, Chinese fringe trees, cherry blossoms, deciduous trees, and Taiwan golden-rain trees, in addition to rare water plants such as common wax-plants, Britton's Wild Petunias, Job's tears, water lilies, yellow water lilies, narrow leaf water-plantains, which showcase a completely totally different landscape each season.



The landscapes around plant areas and in the Macronix Park are watered with recycled rain water, which not only facilitates water conservation, but also serves as the best example for environmental protection. Ecological urban designs for the Macronix Park, such as 3D green designs, roof greens, multilayer planting, and ecological ponds, also demonstrate our utmost efforts to protect the ecosystem.



Macronix Park is open to the public for their enjoyment during regular hours and is an ideal place for schools and environmental groups to hold ecological education events. Since 2004, Macronix Park has won the Award of Distinction for Greening/Beautification from the Hsinchu Science Park Bureau for many consecutive years.



In addition, all Macronix facilities are located inside the Science and Industrial Park. All environmental protection work complies with local government regulations, internal corporate environmental policies and specifications to effectively conserve the ecological environment. Subsequently, environmental awareness is raised to encourage everyone to fulfill their duties as global citizens.



6.4 Green Enterprises

6.4.1. Green Products

Following the rising awareness of green consumption and growingly strict environmental protection laws worldwide, we are not only reducing environmental pollution caused by our production processes, but also focusing on managing chemicals in product ingredients. Currently, our green efforts include:

- ◆ Products are in compliance with EU Restriction of Hazardous Substances (RoHS) in Electrical and Electronic Equipment
- ◆ Products are in compliance with the European Union's requirements on Substances of Very High Concern (SVHC) and the End-of-Life Vehicles (ELVs)
- ◆ Obtained green product certifications from internationally acclaimed customers such as Sony

Macronix passed the IECQ QC 080000 Hazardous Substance Process Management System Certification annually since 2007 to ensure the effectiveness of its green product management. According to Principle 15 in the Rio Declaration on Environment and Development, "In order to protect the environment, the precautionary approach shall be widely applied by each country according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation." Macronix has complied with regulatory requirements while managing green materials, and no environmental degradation has occurred due to material usage.



Macronix has developed a risk assessment of suppliers (RAS) system that integrates the quality management system and green product control system for supply chain management, to ensure that upstream and downstream suppliers comply with RoHS directives, the EU regulations on SVHC and ELVs, international laws, and customer requirements. Additionally, there's no substance in our products that need to be disclosed in this report based on the reporting threshold of certain reportable

applications and reporting level of International Electrotechnical Commission (IEC) 62474 Material Declaration for Products of and for the Electrotechnical Industry accordingly. As a key member of the electronic supply chain, Macronix has responded to the demand for global human rights protection by purchasing metals such as gold, tin, tungsten, tantalum, and other minerals required by customers to be used in products only with good due diligence, and we insist on not using metals that come from conflict mineral areas. We carry out due diligence for conflict minerals to our suppliers by regularly examining the changes in the list of approved refineries in the Conflict Minerals Reporting Template (CMRT) and Cobalt Reporting Template (CRT), which are updated at least every six months or more as necessary.

6.4.2. Green Procurement and Environment, Safety, and Health Costs Accounting Management System

To keep up with international trend, to fulfill our environmental and social responsibilities, and increase the effectiveness of our investments in the environment, worker safety, and health management, Macronix implemented an environment, safety, and health costs accounting (ECA) management system upon resolution by the ESHC and under the commitment and support of high-level executives in the fourth quarter of 2004. The risk management division formed a cross-department unit to be in charge of planning and building the system in February 2005 and hosted several training and education sessions to promote the system, which officially began operations on December 1, 2005.

The Macronix ECA management system not only considers environmental costs that other companies generally take into account, but also includes safety and health expenses.

The system evaluates overall investment costs and results with respect to environment, safety, and health management and converts activities of environmental protection (e.g. pollution prevention), worker safety (e.g. operation site safety), and health (e.g. health promotion) into financial or accounting data, which is then used to classify the costs into six categories: corporate operations, supplier and customer up/downstream relations, management activities, R&D, social events, and loss compensation. Each category is then subdivided into the respective ECA code to

demonstrate the annual cost of each environmental safety and health item. We subsequently use management methods and approaches to solve or improve environmental problems as part of our strategy for sustainable operations. Our environmental, safety, and health expenditures and total investment amounted to NT\$400 million in 2020. Details are shown in the table below:

Item	Description	2020 Expenses (NT\$)
Outsourcing (services)	Outsourcing expenses for environmental protection, safety, and health management, such as environment maintenance fees, sterilization, waste cleaning, and wastewater treatment	70,951,753
Personnel	Personnel expenses for environmental protection, safety, and health management	50,040,606
Energy	Water, electricity, and fuel expenses for environmental protection, safety, and health management facilities	120,491,570
Commission and Research	Projects or research expenses for improving environmental protection, safety, and health management performance	1,825,350
Education and Training:	Transportation, accommodations, and registration expenses for participating in or organizing environmental protection, safety, and health education and training	227,600
Administrative Management	Administrative management expenses for environmental protection, safety, and health management	52,232
Equipment and Engineering Investment	Investments in purchasing environmental protection, safety, and health equipment or expenses for improvements	36,978,949
Maintenance and Consumables	Expenses for the maintenance of environmental protection, safety, and health facilities, replacement of consumable parts, and waste storage containers	49,402,364
Equipment Depreciation	Depreciation expense of all the pollution prevention equipment	61,029,835
Testing	Outsourced testing and instrument calibration expenses	6,006,407
Other	Other environmental protection, safety, and health management expenses that are not categorized	0
Loss compensation	Compensation for losses sustained during environmental protection, safety, and health accidents, fines for violation of the law, and losses from returned goods that do not comply with international environmental protection regulations	100,000
Total		397,106,666

7. Social Aspect

Warmth, happiness, and growth the vision of Macronix human resource management.

An enterprise is like a big family, and at Macronix we provide our staff with the care and attention that any other family would. With empathy, we respect, understand, and care for the work and life of our staff and extend this caring to their families. This makes employees treat each other with mutual trust and cooperation. Following the philosophy of humane leadership, we provide staff with high flexibility and autonomy at work and continuously encourage staff to actively make valuable innovative solutions to our nonvolatile memory solutions. Therefore, the firm has been able to present top technical papers at the International Electron Devices Meeting (IEDM), VLSI Symposia, and International Solid-State Circuits Conference (ISSCC), receiving worldwide attention on its forward-looking R&D outcomes. Macronix believes in respecting individual diversity and adopting an open-door policy to create an atmosphere of open and transparent communication. We routinely hold management communication meetings, conduct labor/management conferences, and set up staff suggestion boxes in order to provide a platform to encourage our staff to communicate, express their ideas, and share their voices. Macronix established the Macronix CSR Policy based on requirements on human rights protection set forth in the Universal Declaration of Human Rights, ILO International Labor Standards, SA8000, and RBA CoC. We devote our utmost efforts to create a superior human resource management system and labor system with perfect planning and execution abilities, to comply fully not only with local labor laws and regulations, but also CSR specifications to protect human rights.

A happy staff usually consists of those employees with the highest efficiency. Macronix provides competitive compensation packages, a humanistic management system, top recreation and leisure infrastructure, and colorful extracurricular activities to motivate staff and enable them to enjoy working. These measures also help staff nurture active and positive work values, broaden the horizons, spark their passions and showcase the strengths. The Company hopes staff can find happiness, morals, self-confidence, satisfaction and pride in the work they do.

Talent is the foundation and the most valuable asset of the corporation. Hence the Company established a comprehensive training system and provides well-structured and

constant training plans. This system accommodates different learning paths, competencies, and career ladder structure to provide staffs with individual development plan. To achieve continuous growth for the Company and its staff, Macronix has various types of training programs that are in line with corporate strategies and organizational development. The programs adopt innovative and diverse teaching methods to enhance staff's knowledge, skills, and capabilities that will then transform into strengthening the Company's competitiveness.

We believe that a comfortable working and learning environment will bring out additional growth potential and renewed energy for our staff, which is the driver of success. For this reason, Macronix works hard to build a work environment that allows staff to enjoy physical, psychological, and spiritual health. The Company practices the value of caring for its staff through its management system, and ensures that measures are properly implemented through internal and external audits. We also have improved the workplace environment and increase harmony between the staff and the management team in order to build a warm, happy, and growing family.

7.1 Staff Respect

7.1.1. Recruitment

Equal Opportunity

Macronix provides equal employment opportunities, and is against discrimination and child labor. This is the core value of our happy enterprise philosophy. We aim to provide fair promotion, equal employment, and forbid discrimination and harassment in the workplace. This principle of equal opportunity is the root of Macronix's corporate value. At Macronix, employment, work assignment, and promotion are based on individual abilities and job requirements, and are not affected by age, birthplace, race, skin color, gender, sexual preference, language, religion, disability, political ideology, nationality, social status, financial status, family background, or any other status.

Prohibition of Child Labor

Macronix prohibits child labor and stipulates in its internal regulations that workers under the age of 16 may not be hired. The ID documents of new employees are inspected when they report for work; the Regulations on Child Labor Remedies (OI1080-0103) were established to investigate, handle, and remedy situations when child labor is hired by accident.

Workforce Structure

As of the end of 2020, the total number of employees at Macronix was 3,992, including 3,892 regular employees and 100 temporary employees, all of whom work in Taiwan and are full-time employees. Employees between the ages of 30-50 who have a wealth of specialized knowledge and experience are the Company's backbone, and account for 65.7% of all regular employees. The workforce structure is detailed in the two tables below:

Workforce Structure of * Regular Employees

Category	Sub-category	Male		Female		Subtotal and percentage of sub-categories	
		Head count (A)	Percentage of sub-category (A/C)	Head count (B)	Percentage of sub-category (B/C)	Subtotal (C)	Percentage of regular employees (C/Total number of employees)
Position	Executives*	558	71%	226	29%	784	20%
	Non-executives*	1,707	55%	1,401	45%	3,108	80%
Age	Under 30	573	65%	313	35%	886	22.8%
	30-50	1,426	56%	1,134	44%	2,560	65.7%
	Above 50	266	60%	180	40%	446	11.5%
Nationality	Taiwanese Citizen	2,119	60%	1,415	40%	3,534	91%
	Foreigner	146	41%	212	59%	358	9%
Type of staff	Direct Employee	349	24%	1,094	76%	1,443	37%
	Indirect Employee	1,916	78%	533	22%	2,449	63%
Work Location	Local	2,254	58%	1,625	42%	3,879	99.7%
	Offshore	11	85%	2	15%	13	0.3%
Subtotal by Gender		2,265	58%	1,627	42%	3,892	100%
Total Number of Employees						3,892	100%

* Regular employees: Non-fixed term contractor or specific fixed-term contractor with a term of one year or longer

* Executives: Managerial officers

Workforce Structure of * Temporary Employees

Category	Sub-category	Male		Female		Subtotal and percentage of sub-categories	
		Head count (A)	Percentage of sub-category (A/C)	Head count (B)	Percentage of sub-category (B/C)	Subtotal (C)	Percentage of temporary employees (C/Total number of employees)
Age	Under 30	19	66%	10	34%	29	29%
	30-50	37	67%	18	33%	55	55%
	Above 50	7	44%	9	56%	16	16%
Subtotal by Gender		63	63%	37	37%	100	100%
Total Number of Employees						100	100%

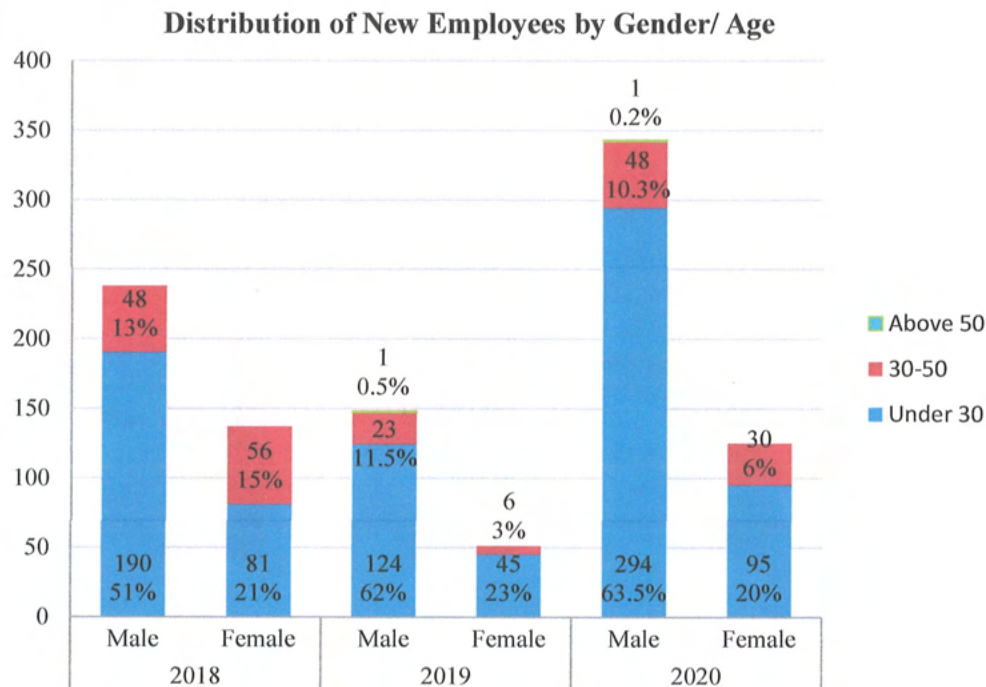
* Temporary employees: Fixed-term contractor (does not include specific fixed-term contractor with a term of one year or longer)

New Employees

To attract outstanding talent and increase our competitiveness, we implement a multi-channel recruitment project, including visits, recommendations from internal employees, campus job fairs, alternative civilian service (research and development substitute services), and industry-academia collaboration. As of the end of 2020, we had hired 468 new employees (343 male and 125 female), accounting for 12% of all employees. The majority of new employees were under the age of 30 (294 male and 95 female), accounting for 83.5% of new employees.

The number and ratio of new Employees

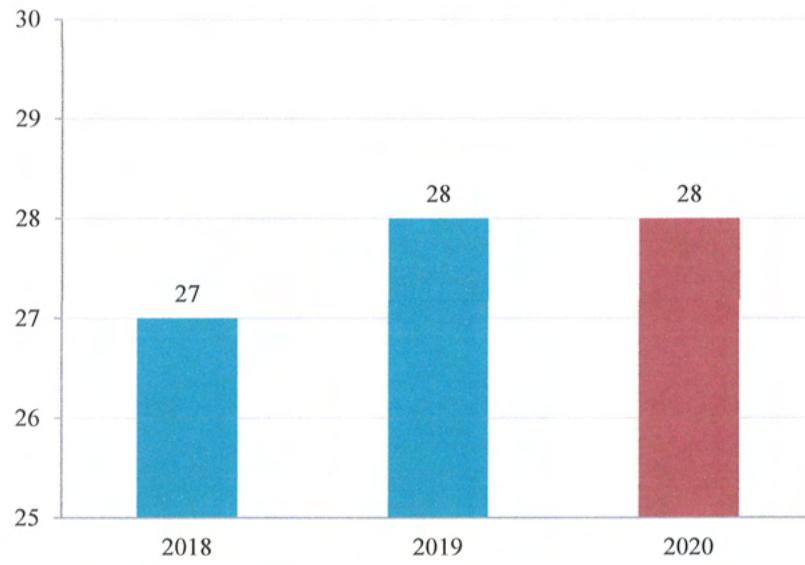




Hiring Employees with Physical and Mental Disabilities

We respect the working rights of people with disabilities and firmly adhere to the related regulations. Macronix has employed 39 individuals with disabilities in accordance with Article 38 of the People with Disabilities Rights Protection Act (PDRPA), including instances where a person with severe or extremely severe disabilities has been hired, which counts as two individuals with disabilities. As of the end of 2020, we have hired 28 employees with physical and mental disabilities (19 of which are severely disabled), thus reaching the quota of individuals with disabilities that should be hired as stipulated by the PDRPA.

Number of Disabled Workers



Turnover Rate

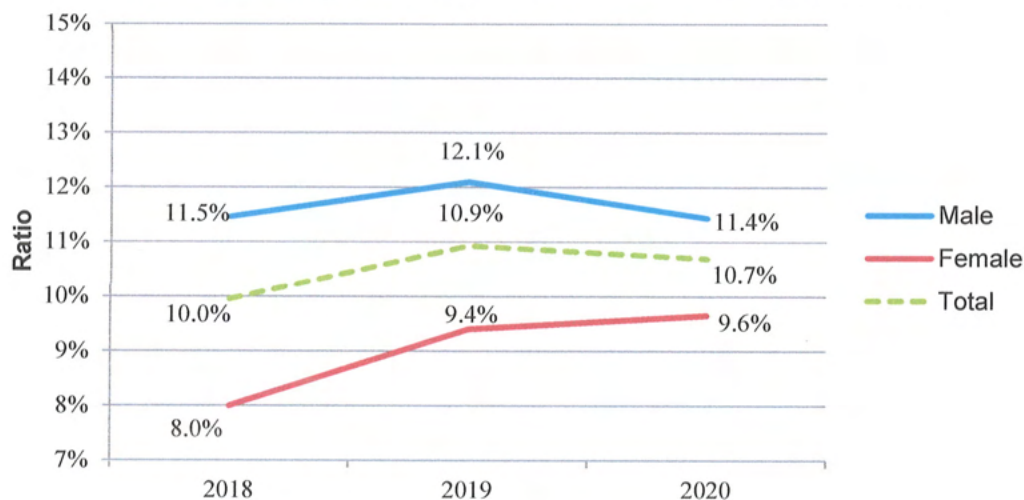
In 2020, 416 regular employees (259 male and 157 female) resigned from their positions at the Company; turnover rates over the years are shown in the following table.

Distribution of Employees Who Resigned Over the Years (by Gender)

Year	Male		Female		Total number of employees and rate	
	Head count	Percentage	Head count	Percentage	Head count	Percentage
2018	262	11.5%	141	8.0%	403	10.0%
2019	263	12.1%	156	9.4%	419	10.9%
2020	259	11.4%	157	9.6%	416	10.7%

* Turnover rate = Number of employees of each gender who resigned on the said year / Total number of employees of the said gender

Distribution of Employees Who Resigned Over the Years (by Gender)

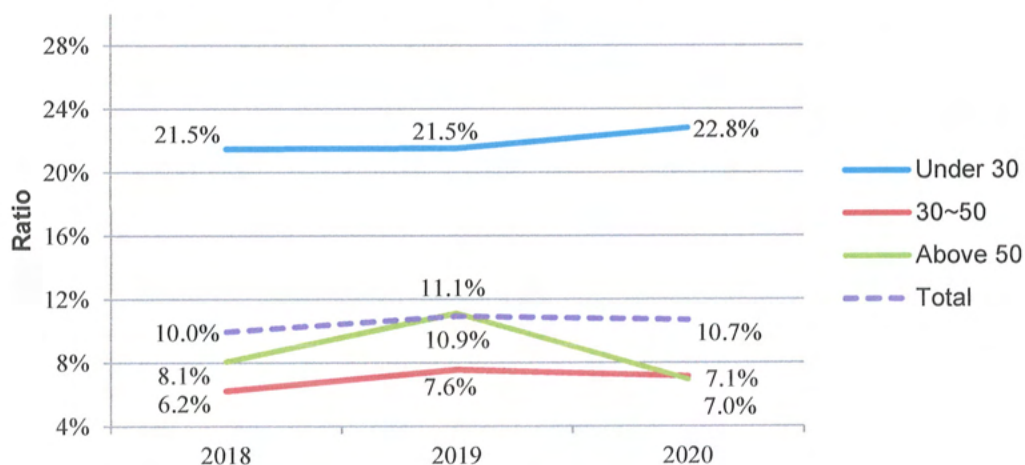


Distribution of Employees Who Resigned Over the Years (by Age)

Year \ Age	Under 30		30-50		Above 50		Total number of employees and rate	
	Head count	Percentage	Head count	Percentage	Head count	Percentage	Head count	Percentage
2018	204	21.5%	173	6.2%	26	8.1%	403	10.0%
2019	179	21.5%	199	7.6%	41	11.1%	419	10.9%
2020	202	22.8%	183	7.1%	31	7.0%	416	10.7%

* Turnover rate = Number of employees in each age group who resigned on the said year / Total number of employees in the said age group

Distribution of Employees Who Resigned Over the Years (by Age)



7.1.2. Upholding Employee Rights

At Macronix, our hiring and employment, job assignments, and promotion practices are based on an individual's abilities and potential, and we do not discriminate against any worker based on age, birthplace, race, skin color, gender, sexual orientation, language, religion, disability, political ideology, nationality, social status, financial status, family background, or any other status. We continue to make revisions to support employment for people with disabilities and endeavor to prevent prejudice, discrimination, and harassment. Since Macronix was founded in 1989, the Company has maintained good relationships between labor and employees from the outset management, and has never experienced loss of business due to labor/management disputes. Based on this relationship, Macronix has received recognition from competent authorities. Macronix did not receive any complaints or incidents where the rights of local staff or aboriginals were infringed in 2020. There were no material operation changes that affect labor rights. If there are any material operation changes that require employees be notified in advance, we will provide a notice in accordance with the law.

Employment Transfers

Macronix respects individual work rights and complies with related laws and regulations, including job transfer requirements specified in Article 10-1 of the Labor Standards Act:

1. The employee shall be transferred based on the needs of business operations and without improper motives or purposes.
2. The wages and other working conditions shall not be changed to be unfavorable to the employee concerned.
3. The employee shall still be able to satisfactorily perform the duties required in terms of physical ability and skills after the transfer.
4. The employer shall provide necessary assistance if the relocated workplace is too far away for the employee concerned.
5. The livelihood interests of the employee and his or her family shall be considered.

Prohibition of Forced Labor

Macronix does not force or threaten any unwilling persons to provide labor services, and ensures that all work is performed voluntarily. We do not force workers or engage in the hiring of slaves, forced or imprisoned workers, or bonded labor.

All employees have freedom of movement and dormitories do not have a curfew.

We do not seize employees' ID documents, passbooks, seals, passports, or work permits, and we enforce the policy of zero charges on foreign workers. Employees have the freedom to terminate their labor contract as long as they comply with laws and regulations.

Pension Plan

Macronix has set up its retirement policies according to the related regulations in the Labor Standards Act. We have established the Pension Supervisory Commission to supervise and manage pension reserve funds, appropriation calculation, and management and operations of other pension-related issues. The Company appropriates the pension reserve funds according to the regulations of the Labor Pension Act. We invite professional accountants and consultants to conduct the actuarial valuation of the Company's pension funds each year, in order to ensure sufficient funding for future employee pension payments

◆ Pension Contribution Under the Labor Standard Act:

Macronix appropriates 2% of the total monthly wages of our employees, and deposits it to a designated account for pension reserve funds in the Bank of Taiwan every month. As of the end of 2020, the fair value of assets was NT\$942,837,000. Expenses recognized in 2020 were NT\$20,622,000, and net defined benefit liability is listed at NT\$1,431,153,000 as of the end of 2020.

◆ Pension Contribution Under the Labor Pension Act:

For those applicable to the new pension system, the Company appropriates 6% of employees' monthly salaries and moves it into their individual labor pension accounts. Employees may also choose to contribute up to 6% of their salaries into their individual labor pension accounts. The amount of expenses recognized in 2020 was NT\$194,661,000.

Notes: This annual report references the reporting recommendations in GRI 201-3, and uses the same consolidation method for preparing financial statements.

Open Communication Environment

We respect individual diversity and have adopted an open-door policy to create an atmosphere of open and transparent communication. We regularly hold meetings based on open communication, including: new employee orientation, departmental staff meetings, and Labor-Management Meetings (the opinions of all employees can be expressed by labor representatives) in order to provide a clear channel of communication that ensures that everyone's voice is heard. The "No Topic is Off Limits" suggestion box is provided so that employee can communicate and express their opinions. Employees can make inquiries, suggestions, and complaints through the suggestion box. Each letter is kept confidential; Follow-ups of the progress and results of improvement ensure a harmonious communication between employees and the Company. We also provide communication and sharing platforms, including a bulletin board and the "Our Family" Employee Relations Website, which allows us to timely understand the needs and issues that employees are facing in real life, so as to positively guide and encourage them and maintain a strong labor/management relationship.



7.1.3. Salary and Welfare Systems

Competitive Compensation Package

Employees are the most important assets of Macronix. To attract, motivate, and retain the best talent, we provide attractive and highly competitive compensation packages according to the importance and complexity of the job, without prejudice in terms of political ideology, gender, marital status, or any such differences. Bonuses are distributed according to individual performance. Based on the idea of sharing profit, when yearly final accounts indicate a surplus, we also distribute annual bonuses based on regulations from the Company's Articles of Incorporation and each employee's individual performance.

Non-Managerial Full-Time Employee Salary Information in 2020

Item/Year	2019	2020	Compared with the previous year
Number of full-time employees	3,783 Person(s)	3,666 Person(s)	-3.09%
Total salary of full-time employees	4,782,679 Thousand NTD	5,220,151 Thousand NTD	9.15%
Average salary of full-time employees	1,264 Thousand NTD	1,424 Thousand NTD	12.66%
Median salary of full-time employees	985 Thousand NTD	1,093 Thousand NTD	10.96%

Welfare Benefits

In addition to providing leaves for full-time employees as well as labor insurance and national health insurance coverage, Macronix also offers relevant welfare measures which are described in the following table. We were awarded "Excellence in Workplace Equality Promotion" by Hsinchu Science Park Bureau in 2020 for our leave program and flexible working hours, maternal health protection measures, daycare measures, unpaid parental leave, and reinstatement assistance, all of which are superior to regulatory requirements.

Welfare Benefits	Description	Proactive Measures
Leave Programs	Various types of leave are granted according to laws and regulations such as: Parental leave, parental employee time adjustment, family-care leave, paternity leave, and menstrual leave.	✓ Flexible Leave ✓ Accompanying Miscarriage Leave
Insurance Plans	As required by law, we provide labor insurance, national health insurance, and group insurance (life /accident/cancer/medical treatment) coverage for our employees, as well as travel insurance for business-related travel abroad. We not only provide basic protection, but also allow employees to raise their insurance premiums and include dependents in the insurance policy at their own expense, depending on their needs; this is aimed to provide employees' families with an extra protection and care.	✓ Dependent Enrollment at Own Expense
Welfare Subsidies	We provide subsidies for child birth, marriages, funerals, emergencies, injuries, hospitalization, and extracurricular cultural activities.	✓ Encouraging Extracurricular Activities
Welfare Facilities	Employee dormitory, parking lot, restaurants, recreation and fitness center, green park, convenience stores, coffee shops, breastfeeding room, and healthcare room.	✓ Recreation and Fitness Center Exclusive for employees
Pension Plans	Our pension fund payment and contributions fully comply with related regulations. In recognition of an employee's contribution and hard work, we also bestow medals to retired employees.	✓ Assistance with Reemployment After Retirement
Staff Welfare Committee	We established the Staff Welfare Committee in accordance with laws and regulations, and systematically promote various employee welfare measures.	✓ Designated Unit
Employees Counseling	We provide free psychological consultation and guidance services, regular health examinations, and	✓ 24-hour 0800 Service Hotline

Unpaid Parental Leave

In 2020, the number of employees qualified for taking unpaid parental leave was 287 (207 male and 80 female), of which 17 actually applied for taking unpaid parental leave (3 male and 14 female).

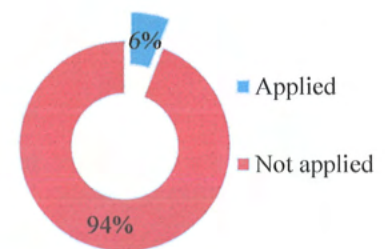
As of the end of 2020, the number of employees reinstated after taking unpaid parental leave was 18 (5 male at a 83% reinstatement rate; and 13 female at a 57% reinstatement rate). Employees who were not reinstated all chose to leave the workplace because they needed to personally take care of their children.

Of the 14 employees that were reinstated in 2019 (2 male; 12 female), 12 (2 male, 100% retention rate; 10 female, 83% retention rate) had stayed on for 12 months or more after their reinstatement as of the end of 2020.

Number of Applicants for Unpaid Parental Leave and Reinstatement and Retention Rates

Application rate			
Category	Male	Female	Total
Number of employees eligible to apply for unpaid parental leave in 2020 (A)	207	80	287
Number of employees that applied for unpaid parental leave in 2020 (B)	3	14	17
Application rate (B/A)	1%	18%	6%

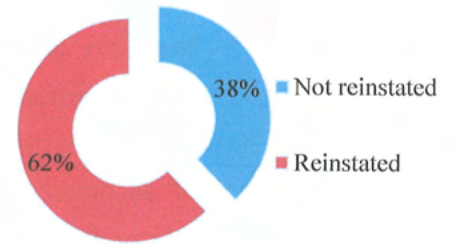
Application rate



Reinstatement rate

Category	Male	Female	Total
Number of employees expected to be reinstated after unpaid parental leave in 2020 (C)	6	23	29
Number of employees reinstated after unpaid parental leave in 2020 (D)	5	13	18
Reinstatement rate (D/C)	83%	57%	62%

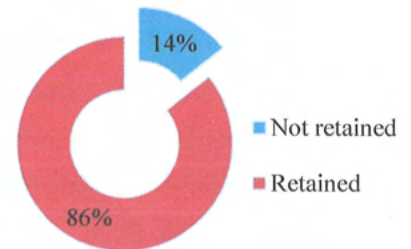
Reinstatement rate



Retention rate

Category	Male	Female	Total
Number of employees reinstated after unpaid parental leave in the previous year (2019) and still active at the end of 2020 (E)	2	10	12
Number of employees reinstated after unpaid parental leave in the previous year (2019) (F)	2	12	14
Retention rate (E/F)	100%	83%	86%

Retention rate



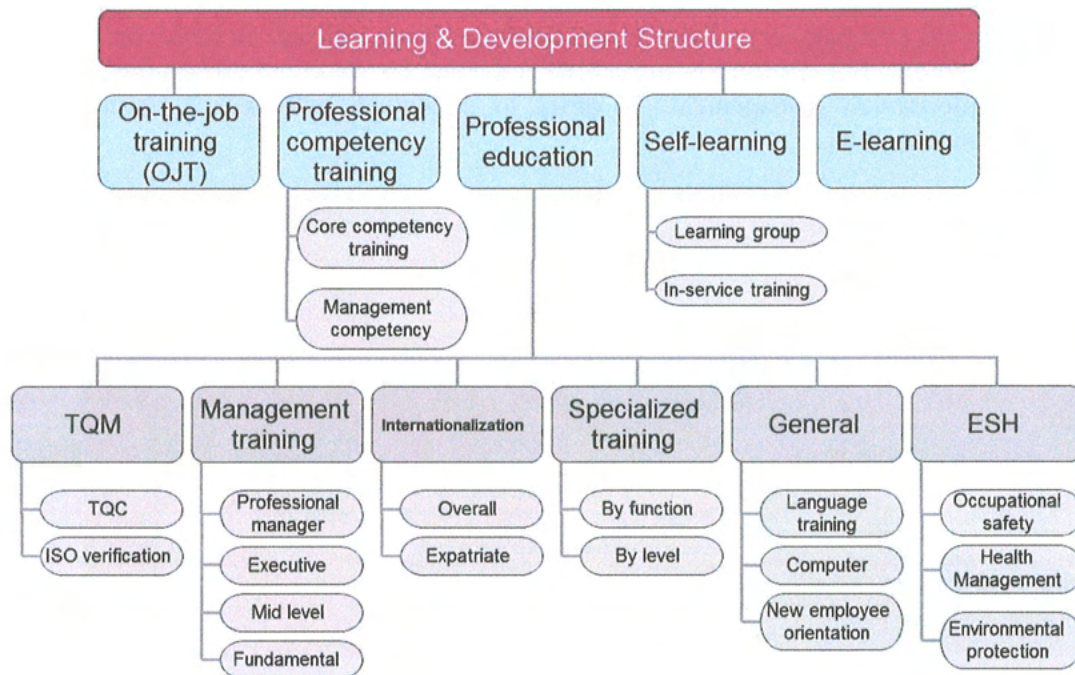
7.2 Learning and Development

Macronix believes talent is the foundation and the most valuable asset to the corporation. Hence, the Company has established a comprehensive training system and provided well-structured and constant training plans and learning roadmaps. This system accommodates different learning paths, competencies, and career ladder structure to provide staff with opportunities for self-growth and allow them to create their own individual development plans.

Our performance management system and individual development plans are closely connected. Interviews for performance reviews are held twice a year in order to confirm whether the employee is on track to achieve his/her individual performance goals and the organization's goals. Based on individual performance, face-to-face meetings between employees and their supervisors can be arranged in order to discuss what is needed to achieve the employee's individual goals and tailor an individual development plan, so as to broaden and deepen employees' professional knowledge and skills. In 2020, the performance appraisal implementation rate for each employee category was 100%.

7.2.1. Nurturing Talents

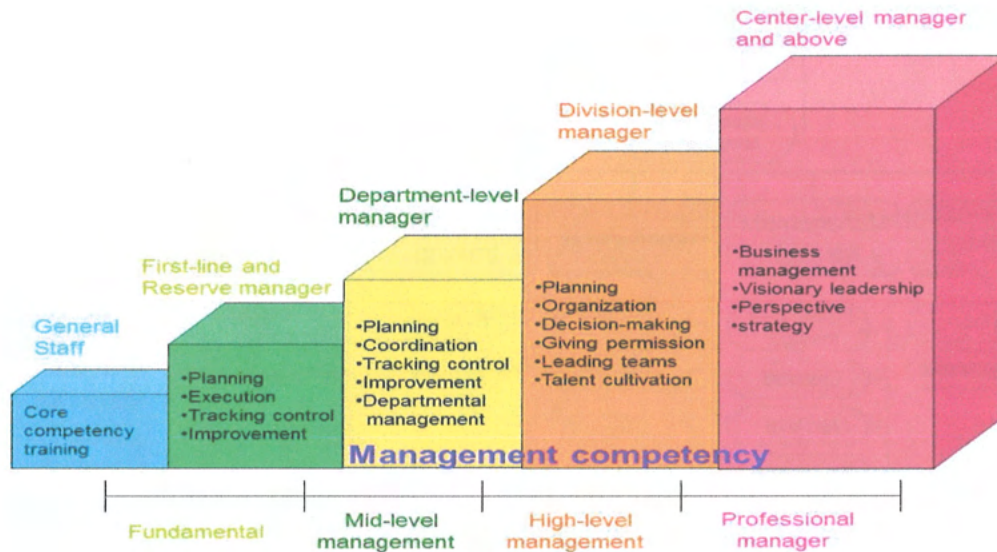
Macronix has developed a variety of training courses according to corporate strategies, job requirements, and individual development. With clear goals and strategic directions, we provide detailed learning roadmaps to employees to optimize their personal learning paths. These learning roadmaps include a series of activities that help employees achieve their goals and develop an extended skill set. These learning roadmaps also provide a list of learning programs that can help to increase their learning efficiency.



Our learning roadmaps include four categories:

- (1) New employee roadmap: For new employees to become familiar with the corporate culture through experience and learning. This allows new employees to adjust to their new work environment and quickly become immersed in our corporate culture.
- (2) Competency roadmap derived from company values: Courses that are designed to implement corporate values and impart related skills, so that employees can demonstrate the conduct expected by the Company.
- (3) Managerial roadmap for different levels of management: Provides ladder structures in management training and features various courses designed for different levels of management, enabling them to maintain steady progress and strengthen their management skills.

- (4) Professional roadmap based on various fields: Guest speakers from within and outside the Company are invited to deliver professional training, on topics including R&D, production, quality, risk management, human resources, administration, sales, and information management, in order to strengthen and deepen employees' professional skills.



Macronix also provides various learning channels to satisfy a number of learning needs of each employee. Our measures include:

- (1) Internal training: Guest speakers from within and outside the Company are invited to host various types of training courses.
- (2) External training: Allows employees to participate in external and work-related training courses and conferences.
- (3) On-the-job training (OJT): Allows employees to develop on-the-job professional knowledge, through job assignments, hands-on practice, and project participations; employees can acquire the necessary knowledge and skills by performing these tasks.
- (4) Online training: Macronix's e-academy learning platform was established to provide employees with easy access to online courses. Individuals so that individuals can study at their own pace and with their own schedule.

7.2.2. Macronix Academy

The Macronix Academy is the platform for employees to continue their learning and development; it has a comprehensive learning system to provide employees with complete and abundant resources for planning their career. Through knowledge gathering and sharing, employees can enjoy enriched learning resources to achieve their career goals.

Moreover, this helps employees to advance in their careers and equips them with skill sets needed to successfully overcome various challenges.

Macronix Academy features the facilities and professional equipment required for employees to learn in a positive environment, including:

- (1) Audio-visual room: Contains multimedia computers, books, DVD/CDs, video tapes, and audio tapes. This rich learning platform allows students to learn without boundaries.
- (2) Training classrooms: Macronix provides numerous lecture halls and classrooms of various sizes that can accommodate different types of course designs.
- (3) Computer classrooms: Personal computer access is available for all students so that they can significantly increase their learning efficiency.
- (4) International lecture halls: Can seat 250 people, making it the best location for large-size training courses, conferences, and lectures.
- (5) Library: Features rich and diverse books, periodicals, and audio/video resources for employees to satisfy their learning needs.



Employee Training Costs and Hours

Indicator	Unit	2018	2019	2020
Total Training Costs	NT\$1 million	8.60	10.6	8.06
Total Training Hours	Hour	98,226	173,46	189,047
Total Employees	Person	4,050	3,853	3,992
Total Revenue	NT\$1 million	36,953	34,995	39,801
Total Training Costs/Total Revenue	%	0.02	0.03	0.02
Total Training Costs/Total	NT\$1/person	2,124	2,755	2,018
Total Training Hours/Total	Hour/person	24.3	45.02	47.36

7.3 Work-life Balance

7.3.1. Macronix H2O

Macronix believes that personnel who enjoys physical and psychological health are the essence of a successful enterprise. For this reason, Macronix strives to provide an excellent work environment for staff, and promotes various approaches to take care of employees' health. In terms of infrastructure, we established a recreation and fitness center and a green park, suitable for all sorts of activities, and provide benefits such as health examinations. Our employees benefit from an energetic work environment but are also encouraged to enjoy an active life!

To help employees form the habit of exercising, which can help them improve their sleeping quality, relieve stress, think more clearly, and perform tasks more efficiently, we actively encourage employees to participate in sports related activities/clubs/courses. Their participation helped Macronix obtain the "Taiwan i Sports" certification issued by the Sports Administration, Ministry of Education (valid for 3 years from 2020 to 2023).

We hope that all employees work in a healthy and happy way, with a work-life balance under the values of “health, happiness, and openness to life” (H2O). We continuously promote the H2O Corporate Wellness Program to provide employees with comprehensive care. Macronix uses H2O to advocate and encourage employees to maintain a work-life balance and help create a bright future together with the Company.

H₂O=健康 Health • 快樂 Happiness • 品味生活 Openness to life



健康Health

An elegant recreation and fitness center

To provide an excellent recreational environment for our employees and their families, Macronix has taken a leading position in the industry by establishing the most comprehensive and comfortable employee recreation and fitness center. The center includes a 50 m heated swimming pool, hydrotherapy spa, children's swimming pool, video game room, a fitness room, racquetball courts, aerobics classrooms, a karaoke room, and multi-purpose indoor courts to provide employees with the most comfortable and healthy facilities for enjoying recreational activities.



Clean, healthy, and delicious meals

Macronix works with professional caterers to provide food with no MSG and low in sodium and oil. Cooperating firms also have professional nutritionists to ensure the healthiness and nutritional balance of the daily meals while the managing units routinely publish food safety inspection results. Furthermore, Macronix routinely inspects kitchen safety and food cleanliness, as well as fire safety management, in order to ensure that employees can eat healthily and with peace of mind.

Comprehensive Employee Assistance Programs (EAPs)

Macronix has integrated external professional resources and gathered teams from the Employee Relations Department, Health-promoting Office, and the Performance and Learning Development Department to establish employee-support services and implement the Employee Assistance Program (EAP); in combination with a professional consulting agency, we provide 24-hour psychological, legal, and financial counseling services free of charge for our employees. We hope that these efforts will be able to help employees deal with a variety of issues, such as health, marriage, family, finance, law, emotions, stress, and work, thereby assisting employees in solving difficulties in their everyday lives and at work.

快樂Happiness

Convenient and safe LOHAS services

Macronix provides complete life management services with optimal comfort and support in the work environment. The company has set up on-site convenience stores and cooperative vendors/stores to satisfy the nutrition, clothing, living, traveling, recreation, and leisure needs of employees. We hope employees enjoy working under such a balanced environment!

5-star employee dormitories

The Macronix employee dormitory totals 16,000 square meters and is situated amid a beautiful community. The dormitory can house 1,000 employees, and is fitted with a living room, restaurant, training classrooms, game room, elevators with views, garden, parking lot for cars and motor scooters, and a 24-hour central surveillance security system



to provide a safe and comfortable living environment for employees.

Full convenience

Macronix provides employees with various on-site convenience services such as convenience stores, coffee shops, and travel agencies; therefore, employees can complete daily activities while at work. In addition, Macronix has agreements with various vendors to provide employees with a variety of choices.

品味生活Openness to life

Seminars on happiness

Macronix aims to constantly improve its employees' quality of life. For this reason, the Company organizes a variety of events on daily living, leisure, and health to give more energy and momentum to employees. We hope that employees can achieve a perfect balance between *family, health, friends,* and spirituality in order to have satisfying, healthy, and happy lives!



A wide
selection of
clubs

In order for employees to achieve a work-life balance, Macronix offers more than 40 clubs, such as creative balloon design, Chinese calligraphy, longboard, water activities, Chinese traditional music, and Chinese cultural studies, as well as charity clubs such as the Humane Society and Big Love Society, so that they can make friends and form new hobbies.



Lively and
innovative
celebrations
and
activities

In response to the pandemic, family days and sports games were put on a halt to protect employees' health and the quality of those activities. The budget of these was turned into vouchers, which were issued along with the mid-autumn festival vouchers for employees and their families to celebrate festivals. Macronix continues to seek agreements with vendors and organize reference book and food collective buying to provide discounts and a convenient life for employees.

參考書團購優惠

活動期間：8/7-8/21
地點：各區圖書館

 國小國中65折起、高中77折起

收單		對帳	
日期	地點/時間	日期	地點/時間
第一梯次	8/7 台北市立圖書館100-12區 101-12區 8/8 台北市立圖書館14-15區 16-17區 8/9 台北市立圖書館18-19區 20-21區	8/11 台北市立圖書館100-12區 101-12區 8/12 台北市立圖書館14-15區 16-17區 8/13 台北市立圖書館18-19區 20-21區	
第二梯次	8/11 台北市立圖書館 (依各區時間)	8/21 台北市立圖書館 (依各區時間)	

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團結力量大 團購最優惠

每款特價 \$149

每款特價 \$219

每款特價 \$149

每款特價 \$219

每款特價 \$149

每款特價 \$219

每款特價 \$149

每款特價 \$219

7.3.2. Safety and Health Promotion Management

Management approach	Importance	Reduces the risk of interrupting production, and increases the company's competitiveness
	Medium and Long-term Development Direction	Promote employees' physical and mental health, and reduce occupational safety and health risks
	Management Method	External: Comply with occupational safety and health related laws Internal: Environmental, safety and health information management system
	Measures	1. Monitoring of work environment is performed semi-annually 2. Environmental, safety, and health education and training and occupational hazard prevention promotions are organized regularly 3. Employee health promotion events are organized regularly
	2020 Implementation Results	0.10 injury rate; 0 cases of occupational diseases; 2.99 lost day rate (LDR); Death rate: 0

Occupational Safety and Health Management

Macronix is fully aware of the impact of employee safety and health can have on our corporate competitiveness, therefore Chairman Wu has always played the role of the Company's advocate ever since Macronix's inception in 1989. He urges employees to take environment, safety, and health management seriously, and establish safety and health work rules. Besides requiring executives of various levels to participate in safety and health management tasks, he shows respect and care for employees by replacing penalties with incentives. If there are any emergencies, occupational injuries, or false alarms in the workplace, employees can propose occupational safety and health issues or improvement suggestions through the suggestion box or labor representatives, and employees who make the best proposals are rewarded. Moreover, Chairman Wu actively introduced various international certification standards during the planning stages of Macronix's environment, safety, and health management systems, so that we could build a comprehensive platform and provide workers with a healthy work environment. We have strict and complete environment monitoring procedures that allow us to test the quarterly aerobic plate count in drinking fountains, and ensure employee health and safety. We periodically evaluate and review our management measures according to government regulations and customers' requirements.

Year	Workers	Head count	Ratio
2018	Macronix employed workers	4,078	97%
	Non-Macronix employed workers	148	3%
2019	Macronix employed workers	4,006	97%
	Non-Macronix employed workers	140	3%
2020	Macronix employed workers	3949	97%
	Non-Macronix employed workers	103	3%

Notes:

1. Source: Ministry of Labor Occupational Safety and Health Administration – Occupational Injury Online Report System
2. Macronix employed workers: Macronix employees; Non-Macronix employed workers: Contractor personnel stationed in plants that follow instructions and are subject to supervision (there are no "noncontract employees" after October 2020.)
3. The number of workers is the sum of the average number of workers at each plant each month

Hazard Identification, Risk Assessment and Accident Investigation

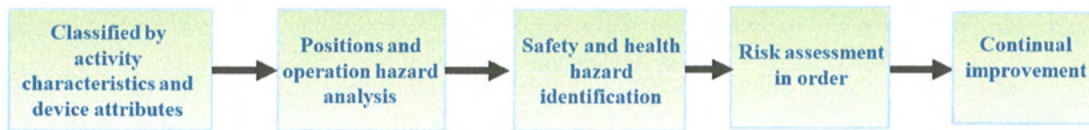
In accordance with the Occupational Safety and Health Act and the requirements of the occupational safety and health management system (ISO 45001), risk assessments are conducted by personnel certified upon training to identify the hazards and risks during routine and non-routine operations of employees (including visitors and vendors), to perform risk rating, and to establish an improvement process and prevention and control management measures, thus lowering our operating risks.

In accordance with the Occupational Safety and Health Act, employees have the right to halt work and evacuate to a safe location if there is any potential imminent danger at a workplace. Therefore, the Company has formulated relevant rules governing the rights to hazard identification, halting work, evacuating, and reporting. Moreover, those exercising such rights will not be punished by the Company.

The risk assessment is categorized into six levels. Levels 1 and 2 (such as fires and explosions causing employees' deaths and interruption of operations) are high risk levels, the top priority risks that should be immediately reviewed and improved. Some accidents originally classified as Levels 1 and 2 have been downgraded to Levels 3 and 4 or lower. Macronix will continue to follow up on and improve matters related to each risk level to ensure a normal operation of the occupational safety and health management system.

The Company has formulated the occupational injury and accident investigation procedure, which classifies incidents into four levels, i.e., "Near-miss" (Level 0), "Mild" (Level 1), "Normal" (Level 2), and "Severe" (Level 3); investigations are undertaken in accordance with this rating. Moreover, the Company analyzes the cause of accidents and reviews improvement/corrective measures. On the other hand, all plants simultaneously implement hazard identification and risk assessment/improvement, adopting a PDCA approach to prevent accidents from happening again.

Hazard Identification and Risk Assessment Process



In 2020, major health and safety awards and recognitions received by Macronix include:

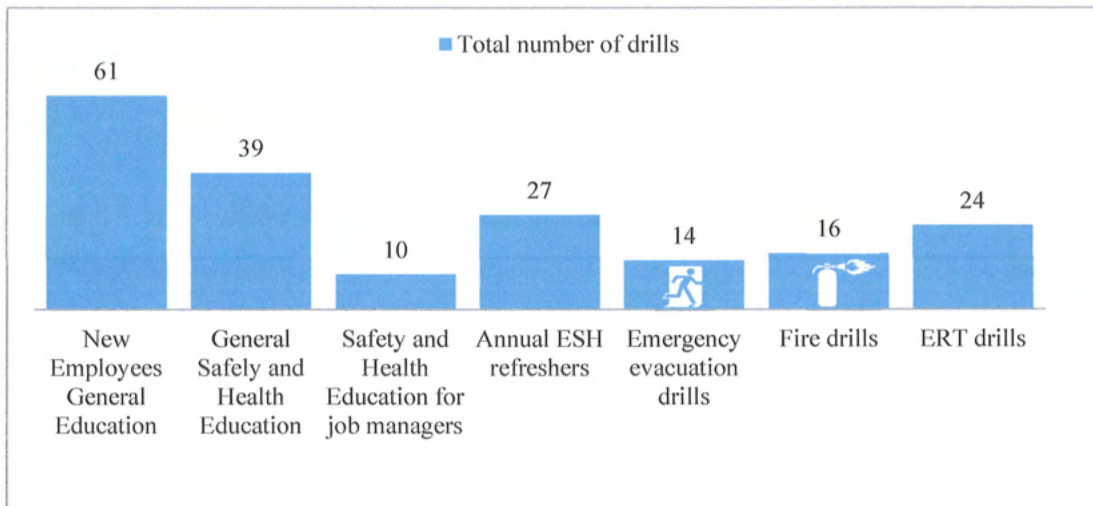
- ◆ Appointed by the Occupational Safety and Health Administration as the leading core enterprise of the "Macronix safety and health business cluster" in Hsinchu City from 2018 to 2020

Macronix has also established the Occupational Safety Health and Environment Committee (OSHEC), which was led by the president of Macronix to oversee the promotion and execution of environmental protection, safety, and health measures. As of 2020, Macronix OSHEC consisted of 5 managers, 4 directing supervisors, 18 labor representatives, 7 technical engineering representatives, and 11 environmental, safety, and health representatives; labor representatives account for 40% of the committee. The committee convenes meetings at least once every quarter, mainly to discuss the Company's environmental, safety, and health management operations, organization, and supervision issues, as well as to track the progress of various projects. Each manufacturing facility holds monthly or quarterly meetings to review the implementation of various initiatives.

We offer our employees adequate personal protective equipment (PPE), and complete safety and health education and training. We have also established a 24-hour emergency response team (ERT) that works four shifts in rotation. The business continuity program (BCP) has also been created to ensure employee and corporate safety. We also organize education and training on occupational safety and health, emergency evacuation drills, fire drills, and emergency response team (ERT) drills (including earthquake, fires, gases, and chemicals) on a regular basis to enhance employees' response to emergencies. The workplace is also regularly inspected for comfort. A total of 191 drills were organized for a total of 16,165 participants in 2020.

2020 Macronix Environment, Safety, and Health Education and Training Statistics

In addition to establishing standard operating procedures, the following measures have been taken to prevent any occupational hazard or disease from impacting employees and corporate operations:



- Professional audits and 24-hour monitoring are provided.
- All accidents are investigated and followed up with related safety improvements in order to prevent any reoccurrence or further incidence.
- Training for new and current employees and PPE management are provided.
- Occupational safety meetings are conducted at each level.
- The workplace is monitored, and occupational safety is continuously improved according to regulatory requirements.
- A 24-hour health service center is available for conducting professional health examinations and health management, while healthy activities, such as seminars, psychological counseling, and an employee fitness and activity center, are provided.
- An employee assistance program (EAP) has been implemented and doctors specializing in occupational diseases have been invited on-site to guide and instruct employees concerning work safety and health.
- Regular doctor visits are scheduled at our facilities to provide medical advice to employees, help conduct health risk evaluations, and assist with health management at different levels.
- A dedicated unit responsible for protecting against epidemics collects the latest information about epidemics and diseases and then integrates any related epidemic control measures in order to safeguard employee health.

- Pregnant employees are cared for by implementing the “Three No's”, no night shifts, no heavy lifting, and no radiation work, to offer a friendly workplace.

Macronix Employee Disabling Injury-Related Indicator in 2020

Year	Gender	Head count	Number of Deaths Caused by Occupational Injury	Total Hours Worked (hr)	Injury Rate (IR)	Occupational Disease Rate (ODR)	Lost Day Rate (LDR)	Absence Rate (AR)	Rate of Death Caused by Occupational Injury
2018	Male	2299	0	4,542,824	0.09	0	0.53	0.002	0
	Female	1779	0	3,515,304	0.28	0	13.54	0.006	0
	Total	4078	0	8,058,128	0.17	0	6.20	0.004	0
2019	Male	2268	0	4,536,000	0.00	0	0.00	0.003	0
	Female	1738	0	3,476,000	0.12	0	0.12	0.004	0
	Total	4006	0	8,012,000	0.05	0	0.05	0.004	0
2020	Male	2278	0	4,556,000	0.09	0	1.27	0.004	0
	Female	1671	0	3,342,000	0.12	0	5.33	0.007	0
	Total	3949	0	7,898,000	0.10	0	2.99	0.005	0

Notes:

1. Types of work injuries calculated by work-related injury statistics
2. Total hours worked = Total number of employees × 8 hours × Number of work days in the year
3. Leaves of absence includes ordinary sick leave, menstrual leave, occupational injury leave, special sick leave, and quarantine leave.
4. $IR = (\text{Number of disabling injuries} \times 200,000) / \text{Total hours worked}$
5. $LDR = (\text{Total work days lost} \times 200,000) / \text{Total hours worked}$
6. $ODR = (\text{Number of occupational diseases} \times 200,000) / \text{Total hours worked}$
7. $AR = (\text{Number of hours absent}) / \text{Total hours worked}$
8. $\text{Death rate} = (\text{Number of deaths caused by occupational accidents} * 200,000) / \text{Total hours worked}$
9. All of Macronix's fabs are located in Taiwan.
10. As the Company has no unified channel for recording occupational injuries, occupational diseases, or the number of hours absent related to contractors, such information is not disclosed. The relevant information collection system is expected to be launched in 2022.
11. The transportation equipment arranged by Macronix didn't cause any traffic accident.

Health Promotion Management

People working in today's world often experience high levels of work-related stress. Since employees are our most important asset, Macronix actively examines employees' physical and mental health problems. Only with healthy and happy working partners can the Company be filled with vitality and sustain its operations; this is the management concept of Macronix.

◆ Continued to promote the Macronix Sports Day Program (since 2011):

- (1) Supported and led by the chairman and executives of various levels (the Company's activity center was used by 12,000 people in 2020). Due to the COVID-19 pandemic, the recreation and fitness center was shut down from March to May. After this period, the center controlled the number of people entering.
- (2) Established diverse and active clubs, with a total of 24 different sports clubs.
- (3) Organized seminars on sports injury prevention/muscle ache prevention, in which participants are taught how to relax their muscles to prevent the effects of a sedentary lifestyle and stress and learned about musculoskeletal injuries caused by incorrect body posture. Monthly/quarterly health education seminars with topics openly chosen by employees, and office exercise sessions are held for each plant/department.

◆ Weight loss course:

- (1) Cardiovascular diseases have ranked among the top ten causes of death in Taiwan for years. Hence, we have continuously introduced cardiovascular disease seminars, invited nutritionists to provide weight-loss meal plans, and hosted athletic speeches (open to all employees).
- (2) As obesity remains the most common disorder found in medical check-ups, we began working with contract partners in 2020. A total of 665 employees participated in body composition testing and professional trainers gave them sports advice. Moreover, we offered intensive classes for weight loss, specifically for whose BMI is higher than 26. The number of employees participating in core strengthening classes (on site and through live streaming): 138 people; the total number of kg of weight lost: 174.2 kg

(3) Health education messages are periodically displayed as slideshows on LCD TV, online courses, and posters.

◆ Increase the number of participants in health promotion activities:

(1) We survey the needs of our employees every year to plan appropriate health promotion activities and promote health-related issues during monthly/quarterly departmental meetings (employees can choose the topics they prefer or issues related to disease prevention/regulatory requirements); these promotional activities have received enthusiastic responses from our employees.

(2) In coordination with the screening of four types of cancers by the Health Promotion Administration, we screened the oral mucosa of employees who smoke and screened the stool occult blood of employees ages 50 and above. Lung cancer has been the top cause of death in Taiwan in recent years. In 2020, Macronix collaborated with Min Sheng General Hospital (which is qualified to perform laborer physical examinations and medical check-ups) to provide free low-dose CT lung screenings to assist employees with disease prevention and provide subsequent health care. A total of 468 employees took advantage of this service, and 166 family members took advantage of the 50% discount.

(3) Osteoporosis is the second most important disease in the world, only behind cardiovascular disease. Hence, we continued to work together with Hsinchu Science Park Clinic (qualified hospital for laborer physical examinations and medical check-ups) in 2020. A total of 162 employees participated in the free dual energy bone mineral density x-ray inspection (DXA).

(4) High intraocular pressure causes optic nerve damage and may cause glaucoma. Some of our employees work using a microscope. Hence, we continued to work together with Hsinchu Science Park Clinic (qualified hospital for laborer physical examinations and medical check-ups) in 2020, and provided intraocular pressure tests to 529 employees free of charge.

(5) Autumn and winter bring about flu season every year. Flu prevention not only requires emphasis on personal hygiene and hand washing, receiving the flu vaccine can also prevent the flu. We worked together with Hsinchu Science Park Clinic (qualified hospital for laborer physical examinations and medical check-ups) in 2020 to provide flu vaccination at employees' own expense for 485 employees.

(6) Hepatitis B is prevalent in Taiwan and its most severe complications are cirrhosis and liver cancer. These two diseases have remained important causes of death in Taiwan until today. The diagnosis of cirrhosis and liver tumors are the main reason for performing an abdominal ultrasound. The inspection can also achieve early discovery of issues with the liver, gallbladder, bile duct, pancreas, spleen, and kidneys. Hence, we continued to work together with Min Sheng General Hospital (qualified hospital for laborer physical examinations and medical check-ups) in 2020 to provide abdominal ultrasound inspections at employees' own expense.

(7) We started to include CPR+AED training in our regular employee training in 2020 to protect the lives of our employees and their families! Physical courses were reduced and online courses were filmed in response to the pandemic, with 2,806 employees completing online training; two CPR+AED lectures were held with the participation of 69 employees.

◆ Maternal worker health management:

(1) Care plans for female employees have been introduced to implement maternal health care measures that allow employees to work at ease while also caring for their families. Mothering classes are held every month, and cancer screening activities take place occasionally to provide health-related information for women. Each plant has established a breastfeeding room that exclusively offers comfortable equipment for employees who need to breastfeed. We also offer small gifts to employees who breastfeed for at least six months.

(2) We have won awards in the breastfeeding room contest held by the Hsinchu City Government for eight consecutive years (2013-2020), and won the Outstanding Award in 2020 (effective for three years).

◆ Since working in the high-tech industry is often competitive and stressful, the Company has planned a long-term EAP to arrange a series of stress-relieving seminars, invite psychologists to provide consultation services at the plants (consultations can also be provided outside of the Company by calling a toll-free number), and employ visually impaired masseurs/masseuses to provide massages.

◆ COVID-19 prevention and management:

(1) Macronix immediately established the COVID-19 Prevention Task Force when the

COVID-19 pandemic broke out in early 2020. The Task Force frequently convenes anti-epidemic meetings to formulate anti-epidemic policies and various management measures, and to establish a standard operating procedure, a reporting mechanism, and countermeasures.

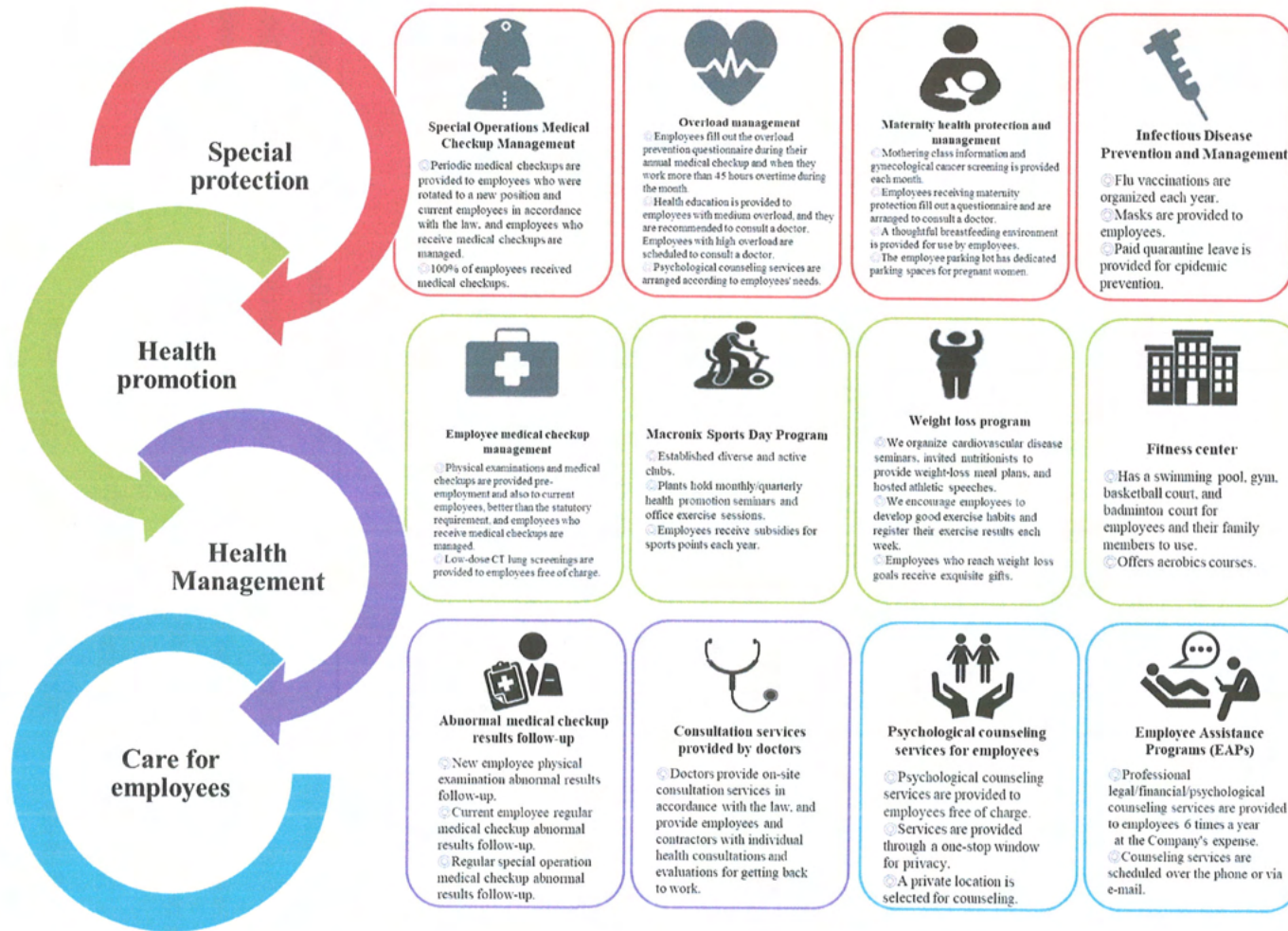
- (2) Appointed dedicated staff to track and pay attention to epidemic prevention and management measures, e.g., body temperature registration, epidemic prevention statement, environmental cleaning and disinfection, food safety and hygiene, social distancing, anti-epidemic consulting services, anti-epidemic supplies management, an anti-epidemic board for awareness, the anti-epidemic e-management system, and visitors' entry permit application.
- (3) Pop-ups on the computers remind all employees to follow the anti-epidemic measures for health and safety every day. Rolling reviews are conducted to reinforce or upgrade the anti-epidemic measures in the hope of ensuring the safety of employees, visitors and contractors, and smooth operations of the Company.

◆ Awards & achievements in 2020

- Received the Breastfeeding Room Certification (2020-2023) from the Public Health Bureau, Hsinchu City in 2020
- Received the Breastfeeding Room - Award of Distinction from the Public Health Bureau, Hsinchu City in 2020



Comprehensive Health Management



7.4 Social Welfare

Since the inception of Macronix in 1989, we have always insisted on deeply cultivating our own technical strength and have been committed to helping enhance Taiwan industry's R&D capabilities and technology innovations. Macronix manufactures important electronic components that help enrich people's lives. As a member of the global market, we are mindful to maintain sustainable operations and continue to augment shareholder interest and care for the environment. Macronix never forgets to repay the society that nourishes us.

We have devoted longtime efforts to community involvement through the Macronix Education Foundation, particularly in the three main areas of science education, cultural creation assistance, and care for the disadvantaged.

7.4.1. Planting the Seed of Science Education

Background

We believe that only by constantly fostering technology talent can Taiwan maintain its leading position in the world and outperform international competitors. Accordingly, Macronix made donations to create the Macronix Education Foundation in 2001, chaired by the Chairman of Macronix, Miin Wu. Macronix supports the Foundation with approx. NT\$20 million to hold its primary events. Macronix employees also participate in the Foundation's events. It is anticipated that through the strength of the Macronix Education Foundation, resources can be maximized systematically, enabling more people to participate, thereby arousing the innovative competency of the younger generations, and expanding the knowledge and perspectives of our domestic scholars.

Tenets

The foundation's work focuses on enhancing the value of knowledge economy, incubating science and technology talent, caring for children's and adolescents' physical and mental development, and elevating social harmony and quality of life. In accordance with relevant laws and regulations, it has endeavored to:

- I. Sponsor technological development.
- II. Reward outstanding science and technology talent.

- III. Cultivate children and adolescents to develop an interest in learning knowledge related to science, humanities, and nature.
- IV. Plan activities such as nature observation, cultural events, historic site visits, and folk art events.
- V. Handle public welfare and education related matters that conform to the tenets of the foundation.

Outcomes

By focusing on cultivating basic scientific knowledge and nurturing talented engineers, the Foundation continues to implement the Future-Knowledge Engineering Program because we know that education is the basis for the future that must be continuously planned and promoted. Furthermore, the foundation holds various activities for different groups, including the Macronix Golden Silicon Awards, Macronix Science Awards, Macronix Chair Professor Project. The Foundation also supports national science education in order to foster scientific talents in Taiwan.

For more than 20 consecutive years, over 35,000 teachers and students have participated in the Macronix Golden Silicon Awards and Macronix Science Awards with extreme enthusiasm. Over NT\$160 million in scholarships have been awarded. In 2013, the Macronix Education Foundation participated in a rating evaluation conducted by the Ministry of Education for the first time and received the highest rating of "outstanding". In recognition of the Macronix Education Foundation's important contributions to Taiwan's science education, Chairman Miin Wu, leader of the Foundation, received the Social Education Contribution Award from the Ministry of Education in 2017, and won Taiwan EY Entrepreneur Of The Year and Business Paradigm Entrepreneur Of The Year in 2018.



Macronix Golden Silicon Awards

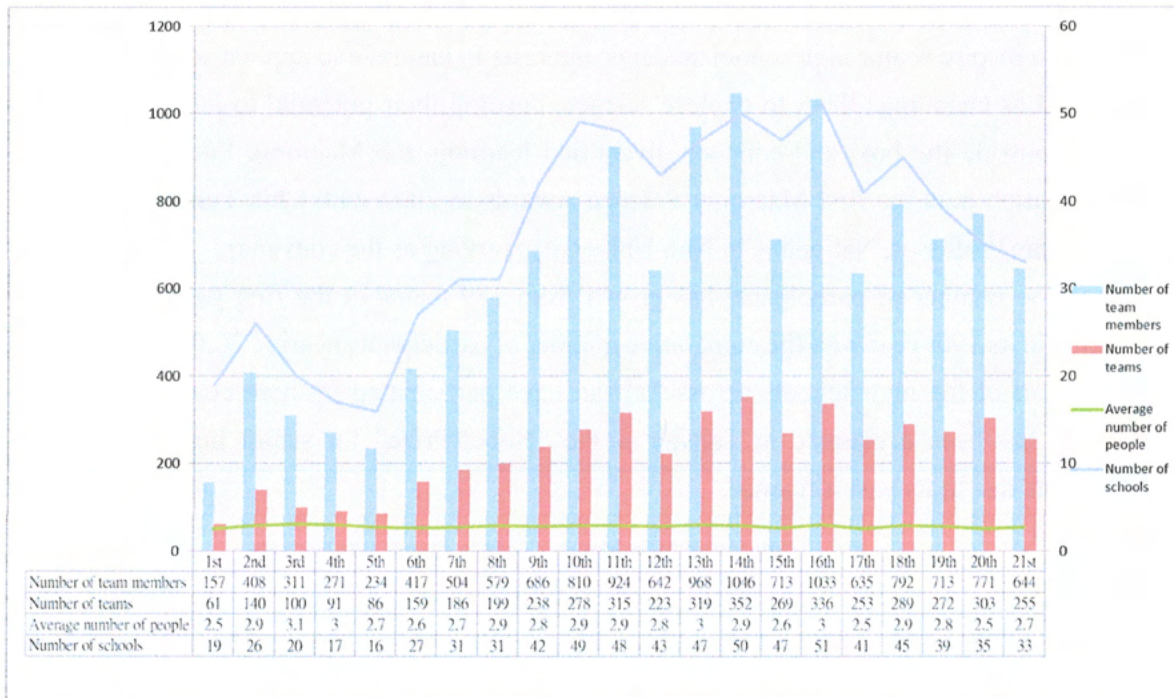


To inspire Taiwanese college students' creative spirit and hands-on experience in the field of semiconductor research, as well as to promote positive exchange and interactions between industry and academia, the Macronix Education Foundation held the first Macronix Golden Silicon Awards - Semiconductor Design and Application Competition in 2000. Now, over 16,000 students and teachers nationwide have participated in these competitions. The year 2020 marked the 20th anniversary of the Golden Silicon Awards. The foundation increased overall prize money by 20%, reaching up to NT\$4.512 million. It is hoped that raising the prize money can attract more innovative talent to join technology R&D. The Macronix Golden Silicon Awards is considered the most important competition by electronic and electrical engineering students for evaluating their performance before graduation. Envisioning the industry's development trends, Macronix continues to incorporate a wide variety of applications, such as biomedical, robotics, digital home, automotive, IoT, and AI into the Golden Silicon Awards. The goal of adding new categories of competition is to attract and encourage students to propose innovative ideas and exciting creations in relevant domains, thus further stimulating domestic research trends.

The Green category of the awards was established within the Application Group to promote sustainable development of the environment, encouraging students to engage in energy conservation and environmental protection-related research. Over the years, 157 works have been submitted under this category, including a winner of the Judging Panel's Gold Award.



The former president of Academia Sinica, Dr. Yuan-Tseh Lee, has diligently attended the Macronix Golden Silicon Awards ceremony for 20 consecutive years; he always listens wholeheartedly to award-winning students' creative works.

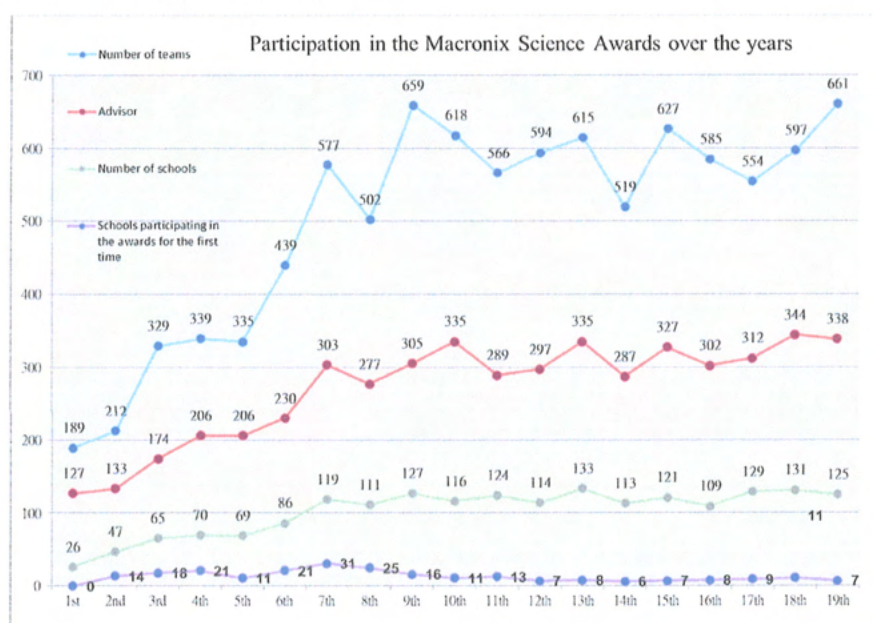


Macronix Science Awards



To inspire senior high school students' interests in natural and applied sciences as well as encourage them to explore science, develop their potential to innovate, think outside the box, and enhance diversified learning, the Macronix Education Foundation held the first Macronix Science Awards in 2002 with Chia-Tung Lee, Emeritus Professor, National Chi Nan University, serving as the convener.

The number of participants has grown from 189 teams in the first year to 661 teams in its 19th year with the cumulative number of participants nearing 20,000. More than half of the high schools across Taiwan have participated in these competition, which has been acclaimed in Taiwan as the “Nobel Prize” for senior high school students due to its vast influence.





Administrative Deputy Minister of Education Lin Teng-chiao and Deputy Minister of Science and Technology Lin Minn-Tsong attended the awards ceremony to encourage the award winning teachers and students.

Macronix Science Awards Association



To extend the creative spirit of the Macronix Science Awards, the foundation established the Macronix Science Awards Association in September 2004, which is composed of all prize winners. Through the association, new attendees can network with the senior members to expand their scientific horizons from diverse fields' perspectives, thereby helping each other grow and form lifetime bonds.

The foundation has a project team that guides the association officers in planning and execution of the association's annual meetings. Various seminars are held from time to time inviting Macronix Science Awards committee members and leaders in technological, social, and cultural fields to inspire members to explore life and knowledge in a relaxed, dynamic, and enjoyable manner.

Macronix Chair Professor Project

Macronix has also setup the Macronix Chair Professor Project, which helps academic institutions in Taiwan offer positions for senior faculty and famous researchers in the areas of VLSI and SoC. Macronix hopes that doing so will give students the opportunity to learn about state-of-the-art technologies and keep up with the latest industry developments. The Company also encourages the participation and collaboration of industry, academia, and research institutions.

Sponsoring Important Science Education Organizations

Since its establishment in 2001, the Macronix Education Foundation has continuously promoted science and technology education by upholding the values of the knowledge economy, caring for the development of children and adolescents, and elevating social harmony and quality of life. By supporting major organizations devoted to promoting fundamental science education, including the Wu Chien Shiung Scholarship Foundation, Yuan T. Lee Foundation Science Education for All, and Boyo Social Welfare Foundation, the Macronix Education Foundation aims to inspire students to learn about science from everyday life, find an interest in science, and ultimately contribute new findings to society.



Chairman Miin Wu was invited to give a speech during the Wu Chien-shiung Science Camp, sharing his academic and entrepreneurship experience with nearly 200 high school students from around Taiwan.

Furthermore, Macronix sporadically sponsors colleges to organize EE camps or invites students and charity groups to visit Macronix for popular science education activities.

The Macronix Education Foundation has also made donations every year since 2012 to the International Organization of Chinese Physicists and Astronomers (OCPA) for the Outstanding Young Researcher Award (Macronix Prize) to encourage young overseas Chinese researchers in the fields of physics and astronomy in order to jointly promote high-tech developments. Research grants have been awarded to 11 recipients.

Donations to NCKU to Construct the Cheng Kung Innovation Center-MACRONIX Hall to Cultivate Interdisciplinary Talent

Macronix attaches great importance to the promotion and development of knowledge engineering. After donating NT\$400 million to National Tsing Hua University to construct the Macronix Learning Resource Center (Macronix Building), we donated NT\$420 million to National Cheng Kung University in 2019 to construct the Cheng Kung Innovation Center-MACRONIX Hall to foster technology talent. National Cheng Kung University founded the Miin Wu School of Computing in 2020, to provide teachers and students with an excellent research environment, cultivating interdisciplinary talent for Taiwan with an expertise in computational science, artificial intelligence, and data science. This will allow Taiwan to take an important place on the international stage in the field of technology, which will be crucial to changing the society and solving humanity's problems.

7.4.2. Fostering Local Culture and Creative Industries

Inviting Cutting-Edge Taiwanese Artists to Design Award Trophies

The Macronix Golden Silicon Awards and Macronix Science Awards have become a major battleground for scientific competition in Taiwan. To cultivate local artists, the Macronix Education Foundation has set an example by inviting different local artists to design the trophies every year. The Macronix Education Foundation has supported local sculptors with donations of over NT\$1 million per year, with the total exceeding NT\$17 million over the years and with almost 30 artists benefiting from this. These creations are the spiritual accomplishments created by more than 20 artists, and have allowed over 35,000 participants a chance to appreciate the beauty of art as they cheer the winners of the awards.



Technology for Charity - Care for Underprivileged Groups

The Macronix Education Foundation not only cares for the development of science and technology talent, but also places importance on disadvantaged groups. Since 2009, the Macronix Education Foundation has sponsored the St. Joseph Social Welfare Foundation to assist mentally and physically challenged children and adults in adapting to society and workplaces, and gaining independence through rehabilitation and various medical resources.

7.4.3. Environmental Protection and Charity Events

Adopting a Bicycle Eco-path in Hsinchu City and Co-organizing ESH & Charity Events

Based on its corporate social responsibility, Macronix adopted a 12-km long bicycle eco-path in Hsinchu City, located south to the Hsinchu Fish Harbor, north to the Jincheng Lake. Alongside the path, people can enjoy the scenery changing from the Hsinchu Fish Harbor, Hsinchu Environmental Protection Park, Sea Viewing Park, the seawall and sandy coast near the Hsinchu City EPB Incinerator Plant, Hsinchu City Coastal Low Carbon Center for Environmental Education, Hai-Tian-Yi-Xian Sea-watching Wooden Trail, Konan Coastal Scenic Area, Konan Canal, and finally reach Jincheng Lake, the center of Hsinchu City's bird-watching zone. In particular, the Hai-Tian-Yi-Xian scenic spot's splendid scenery attracts many people during weekdays and weekends that come to enjoy the gentle breeze blowing along the wooden trail. Macronix has assigned dedicated employees to clean the path every week to provide a clean and tidy environment for the public, so that people can spend time with their kids in pleasant surroundings. Thanks to the bicycle path's beautiful landscape, families can create unforgettable memories and enhance their health.



Moreover, Macronix often participates in organizing environmental protection and health activities, and helps SMEs improve their environmental protection, safety, and health management. Hence, Macronix frequently receives awards and earns recognition from the competent authorities.

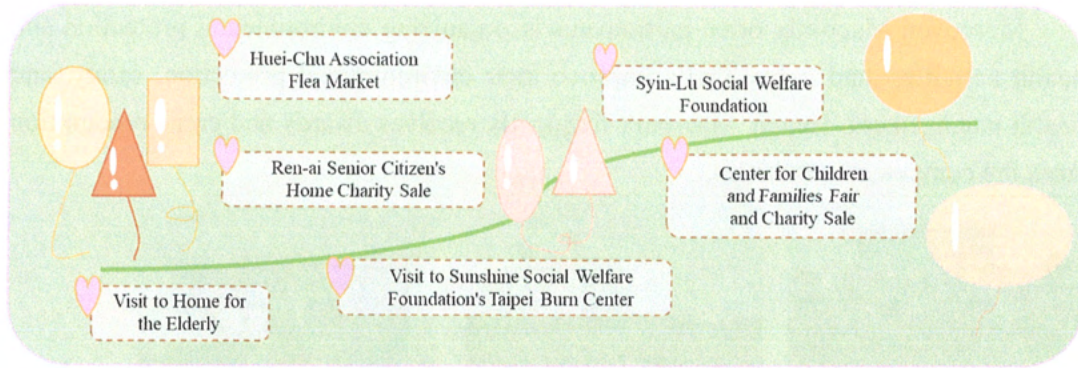


7.4.4. Employees Participation in Charity Event

Macronix has taken active steps to fulfill the Company's social responsibility, and has demonstrated compassion for those in need during the occurrence of major disasters, helping people in all corners of society. By actively establishing charity clubs, raising funds for those clubs, and helping with allotting club meeting sites and human resources, we show our enthusiasm and support for social charities to all Macronix employees, and deeply endow the DNA of social responsibility in the hearts of our employees.

Creative Balloon Club

Macronix's Creative Balloon Club is a charity-oriented club full of joy, which was founded more than 10 years ago. It believes that this world needs more love so that our society can be filled with laughter.



The Creative Balloon Club bridges the gap between you and me, sending love and happiness with balloons. The Club actively participates in various charity events, such as the charity sale & fair of the Taiwan Fund for Children and Families, charity sale & fundraiser of Ren-Ai Senior Citizen's Home, flea markets, etc., to raise funds for the disadvantaged.



Funds were raised for the disadvantaged. The Creative Balloon Club participated in charity events, selling balloons and donating all funds to the cause.

Humane Society

Macronix set up an internal employee charity club, called the Humane Society, in March 2001 with the purpose of helping those in need and increasing social harmony. Comprised by a group of caring Macronix employees—the Humane Society—works with other charitable organizations, such as the Hsinchu Taiwan Fund for Children and Families, to help the underprivileged in Hsinchu. The Humane Society was approved by the Hsinchu City Government in 2008 to change its name to the "Humane Society Service Organization".

The Macronix Family Sponsorship Drive

The Macronix Family Sponsorship Drive has entered its 18th year, unwaveringly calling upon employees to donate to and support social welfare organizations, with total donations in 2020 amounting to NT\$1.92 million. The drive sponsors 121 children from six charity organizations including the Taiwan Fund for Children and Families (aboriginal children), Sacred Heart Home, Miracle Home (teenagers), World Vision, Humane Society Service Organization, and Eden Social Welfare Foundation.

Emergency Aid

Upholding the purpose of helping people in distress, the Humane Society organizes fundraising activities to help colleagues and their family members who encounter major crises or need urgent assistance.

Big Love Society

Macronix's Big Love Society is the first charitable organization in the Hsinchu Science Park that focuses on healthcare. It promoted the "10,000 Organ Donor Signups with National Health Insurance Card" initiative as its first phase goal. The year 2017 marked the 10th year of its promotion, when the society completed its 10-year mission to help promote organ donation. In the future, the promotion of organ donation will be carried on by medical professionals, and Big Love Society will withdraw from related campaigns. However, the spirit of big love will not end, and Big Love Society will continue to gather together company employees and the public to help all corners of society that are in need of assistance.

Promotion of After School Classes for Disadvantaged Students

- In 2013, Big Love Society initiated a charity event to collect monthly donations for Boyo Social Welfare Foundation to help disadvantaged children attend after school classes. Over seven years have passed and over 76 students participated in after school classes in 2020, thanks to the donations that totaled NT\$658,000.

Promotion of Charity Group Activities

- Big Love Society actively promotes events of charity organizations, and assisted over 37 events of over 30 charity organizations through charity sales, donations, collection of supplies, and volunteer service in 2020, donating and raising over NT\$50,000.



Animal Club

The Animal Club was established to help take care of stray animals with dedication, love, and compassion, by embracing the principles of respecting life, caring for life, and advocating the concept of respecting animal life, as well as protecting the environment. It is the only corporate club in Taiwan that aims to protect animals.

The Animal Club works with local governments and is dedicated to trap-neuter-return (TNR) of stray dogs/cats in Hsinchu and Miaoli. Besides rescuing injured animals, even bigger efforts are put into the capture of stray dogs/cats, and sending the stray animals for spaying/neutering at an animal hospital. This stops the breeding of stray animals at the source, reducing the number of stray animals that are born each year by 3,000-4,000, and helps the government resolve a social issue.

It organizes free adoption activities at holiday flower markets during all holidays (including Chinese New Year), conducts follow-ups and bears the vaccination and spaying of female dogs expenses. This prevents the constant increase of stray dogs and also prevents rabies, which will cause even more environmental and safety issues.

The club also raised NT\$7 million to build an animal shelter for dogs that it could not find an owner for; the shelter has maintained about 300 stray dogs over the last 17 years.

The Animal Club has not ceased its efforts in animal protection for a single day in the 17 years since it was established; it raises the NT\$4 million it needs to cover its expenses by itself each year. It has been extremely difficult, but the club hopes to help the most disadvantaged lives that are of least concern to the public based on the belief that all life is equal, allowing the public to emphasize the importance of animal lives and jointly contribute to protecting stray animals in Taiwan.



Adoption of stray dogs

- Every weekend and national holiday, volunteers together with young students of charity organizations of Hsinchu's local high schools and colleges host an event at the Hsinchu flower market to allow people to adopt animals. The event raises awareness about adopting instead of buying, not abandoning their pets, and common knowledge for interacting with animals, allowing more people to learn to respect life and mitigate social issues caused by stray animals. Each year, the club finds new homes for approximately 250-300 dogs, conducting follow-up, and pays for vaccines and spaying of female dogs.

Spaying/neu- tering in place of killing

- Spaying/neutering rather than killing not only effectively resolves the problem of too many stray dogs, but also manifests the act of having respect for life. The Animal Club neuters at least 500 stray animals per year on average, over 400 dogs and 200 cats were spayed/neutered in 2020.

Animal rescue in action

- The Animal Club receives public call-ins from Hsinchu County/City and nearby counties, assists with rescuing injured animals, and captures stray female dogs to have them spayed in veterinary hospitals.

Cleaning Animal Shelters and Feeding Stray Animals

- Stray dogs in animal shelters are fed by volunteers every day at a specific time, and cages in the animal shelter are cleaned once a day.

Rabies vaccination for stray dogs

- The Animal Club helps Hsinchu City Government provide rabies vaccinations for stray animals and home reared pets; on average, a total of 600 animals receive vaccine injections every year to help prevent the spread of rabies in Taiwan.

8. Appendix

8.1 Sustainability Report Information

Thank you for reading the Macronix International Co., Ltd. (hereinafter “Macronix) Corporate Social Responsibility (CSR) Report. The purpose of the CSR report is to provide the general public and all Macronix stakeholders with a better understanding of our concerns and actions in 2020 with regard to sustainability and social responsibility. The report also shows our other commitments to various CSR matters and our performance in these areas.

Reporting Period

The report discloses Macronix’s management guidelines, various CSR management topics, material issues, our corporate commitment, and the results of our CSR initiatives during the period of January 1 to December 31, 2020. The report is issued on an annual basis (the previous version was issued in June 2020, and the next version will be issued on: June, 2022). There were no significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain. Except for the anti-corruption policies, there were no changes regarding material issues compared to 2019.

Aspect Boundaries and Scope of the Report

The boundaries and scope of the report include: Headquarters (address: No. 16, Li-Hsin Road, Science Park, Hsinchu, Taiwan, R.O.C.), Fab 1 (address: No. 3, Creation 3rd Road, Science Park, Hsinchu, Taiwan, R.O.C.), Fab 2 (address: No. 16, Li-Hsin Road, Science Park, Hsinchu, Taiwan, R.O.C.), Fab 5 (address: No. 19, Li-Hsin Road, Science Park, Hsinchu, Taiwan, R.O.C.), and the Test Building (address: No. 8, Creation 4th Road, Science Park, Hsinchu, Taiwan, R.O.C.). Other than information disclosed in the consolidated financial report, the subsidiaries are not included within the scope of this report.

Reporting and Third-Party Verification

This report was written based on the GRI Standards of the Global Reporting Initiative (GRI) and AA1000 Accountability Principle (2018). It was verified by a third-party verification unit commissioned by the management representative. Bureau Veritas Certification (Taiwan) Co., Ltd. was entrusted with the evaluation of the report. The report was verified to comply with the requirements of the GRI Standards: Core option and AA1000 Assurance Standards (2018).

Contact information

We sincerely welcome any comments and suggestions regarding the 2020 Macronix CSR Report.

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8.2 GRI/SASB Content Index

8.2.1 GRI Content Index

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GRI 301: Materials	301-1 Applied material's weight and volume	61-62	
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	306-3 Significant spills	70-72	
	306-4 Transport of hazardous waste	70~72	
	306-5 Water bodies affected by water discharges and/or runoff	67-68	
Environmental Compliance			
GRI 103:Management Approach 2016	103-1 Explanation of the material topic and its boundary	60	
	103-2 The management approach and its components	43, 60	
	103-3 Evaluation of the management approach	43, 60	
GRI 307:Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	43, 60	
Employment			
GRI 103:Management Approach 2016	103-1 Explanation of the material topic and its boundary	86-87	
	103-2 The management approach and its components	86-87, 93~95	
	103-3 Evaluation of the management approach	86-87, 93~95	
GRI 401:Employment 2016	401-1 New employee hires and employee turnover	87-95	
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	96-97	
	401-3 Parental leave	99-100	
Labor/Management Relations			
GRI 103:Management Approach 2016	103-1 Explanation of the material topic and its Boundary	86-87	
	103-2 The management approach and its components	86-87	

	103-3 Evaluation of the management approach	86-87	
GRI 402:Labor/Management Relations 2016	402-1 Minimum notice periods regarding operational changes	93-95	
Occupational Health and Safety			
GRI 103:Management Approach 2016	103-1 Explanation of the material topic and its boundary	110	
	103-2 The management approach and its components	110	
	103-3 Evaluation of the management approach	110	
GRI 403:Occupational Health and Safety Management Approach 2018	403-1 Occupational health and safety management system	110-112	
	403-2 Hazard identification, risk assessment, and incident investigation	112	
	403-3 Occupational health services	113-114, 116-120	
	403-4 Worker participation, consultation, and communication on occupational health and safety	110-111	
	403-5 Worker training on occupational health and safety	113-114	
	403-6 Promotion of worker health	116-120	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	112-114	
	403-9 Work-related injuries	112-114	
Customer Privacy			
GRI 103:Management Approach 2016	103-1 Explanation of the material topic and its boundary	51-52	
	103-2 The management approach and its components	51-52	
	103-3 Evaluation of the management approach	51-52	
GRI 418:Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	43, 51-52	
Socioeconomic Compliance			

GRI 103:Management Approach 2016	103-1 Explanation of the material topic and its boundary	43	
	103-2 The management approach and its components	43	
	103-3 Evaluation of the management approach	43	
GRI 419:Socioeconomic Compliance 2016	419-1 Non-compliance with laws and regulations in the social and economic area	43	

8.2.2 SASB Content Index

Sustainability Accounting Standards Board (SASB)			
Topic	Code	Accounting Metric	Page
Greenhouse Gas Emissions	TC-SC-110a.1.	Gross global Scope 1 emissions and amount of total emissions from perfluorinated compounds	78
	TC-SC-110a.2.	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	76-78
Energy Management in Manufacturing	TC-SC-130a.1.	(1) Total energy consumed, (2) Percentage grid electricity, (3) Percentage renewable	73
Water Management	TC-SC-140a.1.	(1) Total water withdrawn, (2) Total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	62-63
Waste Management	TC-SC-150a.1.	Amount of hazardous waste from manufacturing, percentage recycled	70
Employee Health & Safety	TC-SC-320a.1.	Description of efforts to assess, monitor, and reduce exposure of employees to human health hazards	110
	TC-SC-320a.2.	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations	42
Recruiting & Managing a Global & Skilled Workforce	TC-SC-330a.1.	Percentage of employees that are (1) Foreign nationals (2) Located offshore	87

Product Lifecycle Management	TC-SC-410a.1.	Percentage of products by revenue that contain IEC 62474 declarable substances	82-83
	TC-SC-410a.2.	Processor energy efficiency at a system-level for: (1) Servers (2) Desktops (3) Laptops	Not Applicable
Materials Sourcing	TC-SC-440a.1.	Description of the management of risks associated with the use of critical materials	45
Intellectual Property Protection & Competitive Behavior	TC-SC-520a.1.	Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations.	38

8.3 Comparison of UN Sustainable Development Goals (SDGs)

Goals	Description	Related Chapter
1	End poverty in all its forms everywhere	7.4.4. Employees Participation in Charity Events
2	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture	7.4.4. Employees Participation in Charity Events
3	Ensure healthy lives and promote well-being for people of all ages	7.3.2. Safety and Health Promotion Management
4	Ensure inclusive and equitable quality education and promote life-long learning opportunities for all	7.2. Learning and Development 7.4.1. Planting the Seed of Science Education
5	Achieve gender equality and empower all women and girls	7.1. Staff Respect
6	Ensure availability and sustainable management of water and sanitation for all	6.1.1. Water Resource Management 7.3.2 Safety and Health Promotion Management
7	Ensure access to affordable, reliable, sustainable, and modern energy for all	6.2.1. Energy Management
8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	4.3. Innovation 7.1.1. Recruitment
9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	4.2. Risk Management
10	Reduce inequality within and among countries	7.1. Staff Respect
11	Make cities and human settlements inclusive, safe, resilient and sustainable	7.3.1. Macronix H ₂ O
12	Ensure sustainable consumption and production patterns	6.4. Green Enterprises
13	Take urgent action to combat climate change and its impacts	4.2. Risk Management 6.2. Energy and Climate Change Management

14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	6.1.1 Water Resource Management
15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	6.3 Ecological Environment and Conservation
16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive	4.1 Corporate Governance
17	Strengthen the means of implementation and revitalize the global partnership for sustainable development	4.4 Supply Chain Management

8.4 Independent third-party assurance statement



INDEPENDENT ASSURANCE STATEMENT

To: The Stakeholders of Macronix International Co., Ltd.

Introduction and objectives of work

Bureau Veritas Certification Taiwan has been engaged by Macronix International Co., Ltd. to conduct an independent assurance of its 2020 Macronix International Co., Ltd. Corporate Social Responsibility Report. This Assurance Statement applies to the related information included within the scope of work described below.

This information and its presentation in the 2020 Macronix International Co., Ltd. Corporate Social Responsibility Report are the sole responsibility of the management of Macronix International Co., Ltd.. Bureau Veritas was not involved in the drafting of the Report. Our sole responsibility was to provide independent assurance on its content.

Scope of work

The assurance process was conducted in line with the requirements of the AA1000 Assurance Standard (AA1000AS, 2008) with 2018 addendum, Type 1 - AccountAbility Principles and Performance Information engaged. The scope of work included:

- Data and information included in 2020 Macronix International Co., Ltd. Corporate Social Responsibility Report for the 1st January, 2020 to 31st December, 2020;
- Appropriateness and robustness of underlying reporting systems and processes, used to collect, analyse and review the information reported;
- Evaluation of the Report against the main principles of the AA1000 Accountability Principle (2018)¹
 - Inclusivity
 - Materiality
 - Responsiveness
 - Impact
- Evaluation of the Report against the principles of Stakeholder Inclusiveness, Sustainability Context, Materiality, Completeness, Balance, Comparability, Accuracy, Timeliness, Clarity, and Reliability, as defined in the GRI Sustainability Reporting Standards.

The levels of assurance have been applied as moderate level assurance.

Methodology

As part of its independent assurance, Bureau Veritas undertook the following activities:

1. Interviews with relevant personnel of Macronix International Co., Ltd.;
2. Review of documentary evidence produced by Macronix International Co., Ltd.;
3. Review performance data listed in report with sampling basis;

¹ Published by AccountAbility: The Institute of Social and Ethical Accountability
<http://www.accountability.org>





4. Visits to 1 site located in Taiwan (Hsinchu City);
5. Review of **Macronix International Co., Ltd.** data and information systems for collection, aggregation, analysis and review.

Our work was conducted against Bureau Veritas' standard procedures and guidelines for external Assurance of Sustainability Reports, based on current best practice in independent assurance.

The work was planned and carried out to provide reasonable, rather than absolute assurance and we believe it provides a reasonable basis for our conclusions.

Our findings

On the basis of our methodology and the activities described above, it is our opinion that:

- The information and data included in **2020 Macronix International Co., Ltd. Corporate Social Responsibility Report** are accurate, reliable and free from material mistake or misstatement;
- The Report provides a fair representation of **Macronix International Co., Ltd.**'s activities over the reporting period;
- The information is presented in a clear, understandable and accessible manner, and allows readers to form a balanced opinion over **Macronix International Co., Ltd.**'s performance and status during the **1st January, 2020 to 31st December, 2020**;
- The Report properly reflects the organisation's alignment to and implementation of the AA1000 Assurance Standard (AA1000AS, 2008) with 2018 addendum's principles of Inclusivity, Materiality, Responsiveness and Impact in its operations. Further detail is provided below;
- **Macronix International Co., Ltd.** has established appropriate systems for the collection, aggregation and analysis of relevant information;

Alignment with the principles of AA1000 Accountability Principle (2018)

Inclusivity

Macronix International Co., Ltd. has processes in place for engaging with key stakeholders including socially responsible investors, clients, employees, supply chain and local community, and has undertaken a number of formal stakeholder engagement activities in 2018 covering a range of material topics such as Economic, Social and Environment.

Materiality

The Report addresses the range of environmental, social and economic issues of concern that **Macronix International Co., Ltd.** has identified as being of highest material importance. The identification of material topics has considered both internal assessments of risks and opportunities to the business, as well as stakeholders' views and concerns.





Responsiveness

Macronix International Co., Ltd. is responding to those issues it has identified as material and demonstrates this in its policies, objectives, indicators and performance targets. The reported information can be used by the organisation and its stakeholders as a reasonable basis for their opinions and decision-making.

Impact

Macronix International Co., Ltd. 's management system can monitor, measure and be accountable for how their actions affect their broader ecosystems.

GRI report Structure

Macronix International Co., Ltd. does fully provide the information to achieve the GRI Standards 'core' in accordance, and the performance indices do correspond and can be cross referenced to the content of relevant GRI Standards.

Key areas for ongoing development

Based on the work conducted, we recommend **Macronix International Co., Ltd.** to consider the following:

- Encourage organizations to set measurable sustainability objectives for environment, social and economic. For example, to increase the proportion of renewable raw materials used. (IMPACT)

Limitations and Exclusions

Excluded from the scope of our work is any assurance of information relating to:

- Activities outside the defined assurance period;
- Positional statements (expressions of opinion, belief, aim or future intention by **Macronix International Co., Ltd.**) and statements of future commitment.

This independent statement should not be relied upon to detect all errors, omissions or misstatements that may exist within the Report.

Statement of independence, impartiality and competence

Bureau Veritas is an independent professional services company that specialises in Quality, Health, Safety, Social and Environmental management with more than 190 years history in providing independent assurance services. Bureau Veritas 2020 full year revenues reached 4.6 billion euros.

Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day to day business activities. We are particularly vigilant in the prevention of conflicts of interest.

No member of the assurance team has a business relationship with **Macronix International Co., Ltd.**, its Directors or Managers beyond that required of this assignment. We have conducted this verification independently, and there has been no conflict of interest.





The assurance team has extensive experience in conducting assurance over environmental, social, ethical and health and safety information, systems and processes, has over years combined experience in this field and an excellent understanding of Bureau Veritas standard methodology for the Assurance of Sustainability Reports.

Bureau Veritas Certification Taiwan

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10th May., 2021



AA1000
Licensed Assurance Provider
000-76

Technical Reviewer: _____

Date: 10/May/2021

Assurer: _____

Date: 10/May/2021

